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# Stock Market Simulation

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Submitted to the Faculty of  
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By

Mayank Maewall

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Approved by Professor Dalin Tang, Project Advisor

## **Abstract**

A two-member group researched the history of the stock market and stock market trading methods using resources available on the internet. A six-week stock market simulation was conducted using three different trading strategies: Swing Strategy, Trend Following, and News Following. Valuable experience and knowledge were gained from this project about the trading strategies and how to use them in the stock market.

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# **Chapter 1: Introduction**

In this chapter, we will introduce the different aspects of this project as well as our reasons for pursuing this topic and our eventual goals that we tend to meet by the end of our research and simulation. Firstly, we will introduce our goals and methods that will be discussed throughout the entire project and how they will be used in our simulation in order to amplify our observations and research. After our goals, we will present our trading methods that will be discussed in detail in the chapters to come. Finally, we will also introduce the stock market by giving a brief overview of how the stock market was created what purpose it served and how it changed the entire financial world over a very short period of time.

## **1.1 Goals and Methods**

At first we didn't really know what are goals were going to be or even what we wanted to get out of doing this project. We started thinking about it seriously and looking at what this project was going to do for us and how it was going to prepare us for our future. Then we were able to come up with these goals that we thought would make us better in our future careers.

We know that by choosing this IQP we will gain better knowledge and understanding on the stock market. During research, we hope to find several methods that can help one gain the knowledge of understanding and applying their strategies into real life situations in the stock market. Using the trading techniques and strategies we have gained, we would be more accustomed to handling money in the real stock market and hopefully make the correct investment choices which would bring us a large return.

To help us make profits and give us the best opportunity to make those profits we must learn what the best strategies in investment trading for our future dealings with the stock market. Furthermore, our simulation will be conducted on a very fundamental and detailed level so that



our data and conclusions are very thorough. We will use three basic types of strategies for our simulation, swing, trend following, and news following. Based on the final results of the two strategies, we will be able to give an in depth analysis of why we recommend one over the other at that point, and why the other choice would be best suited for situations when the stock market fluctuates.

Lastly by researching this IQP we will not only learn more about the stock market and its strategies to being successful, but we will also have a better understanding on how to research and record data for this project, but also future projects within school and our future careers. Our ultimate goal is not only to have an understanding of the stock market but we also would like to gain experience in research, and presenting information to future employers and bosses that will be managing us in our careers. We would like to make this a successful base to self-improve and show our capability to handle larger and more advanced assignments by professors and bosses alike.

Throughout this stock market simulation, we will be looking at several different strategies and trading schemes that are practiced by thousands of people every day in the real world. Of these strategies, we will be looking at a basic level and focus on three main observation based strategies, which are, news trading, swing trading, and trend following. The three listed will be used for the entire simulation held by our group during a 7-week trial. Furthermore, within the simulation, we will discuss the use of different trading schemes and strategies implemented by our group. Our goal at the beginning of the simulation was to figure out how and why some strategies are useful in some situations and classify each pattern so the most optimal time to buy and sell is recognizable.

## 1.2 Trading Strategies

During the simulation, we will also bring up several categories of the types of stocks available in the stock market, types of investment, and a variety of trading methods that are used every day.

As a brief introduction, swing trading is one of the more popular types of trading. It has become very popular for the person who does not look at the actual value of the stock but rather how much it can gain within a short period of time. Furthermore, swing trading refers to the method of looking at the price of the stock and how much it can change from a one to four day period. As practice, swing traders do not refer to the stocks intrinsic or fundamental value, but rather, the price change so that they can get a gain from a short period of time.

Swing trading is not commonly practiced by large companies, but usually day traders or people that are at home managing their own stocks. Most of the time, large companies have too much invested to be able to buy and sell so quickly, so it gives regular day traders an advantage that they will not have to compete with larger institutions.

Another basic strategy that is commonly used by beginners is news following. As the name suggests, it means that a person uses the news in which ever fashion it is received and then makes trades and invests based on what is heard. There are clearly some advantages and disadvantages to this trading system. Firstly, since it is important to follow the news and see how the company you are following is doing, it can be advantageous to invest your money in a company that you can see is doing well. However, these types of investments can become tricky and be unfavorable to the trader in the end. As a day trader that follows the news, getting real live up to date news is extremely crucial to be successful in this type of trading. However, unlike swing trading, any person following the news could be competing with a large institution and

hoping that they get the lead on whether to buy or sell their stock. However, these large institutions usually have a quicker uptake on the news and information that they can without people even knowing have made their decision within minutes before someone else does.

The third type of strategy we will be analyzing is trend following. People who use this strategy try finding advantages by the ups and downs in markets so they come up with a positive result in the long term. Trend following uses the price change of the moving average and the general direction of the market so that one can just use it to follow the trend rather than find a price to work with. Unlike the other types of trading, trend following invokes a large risk when trading, as a result, the byproduct of trend following is risk management. It uses three components within risk management, the number of shares held, the current market price, and the current market volatility.

For a trader taking this route, it is extremely important to know what time they are entering in the market. The first part of this is to look at the current price of the stock because it describes what the market is currently doing, not what it will be doing in the future. Another key part of trend following as is any part of investing is money management. Not only is it important to know how much you will invest at the current time period, but how much will be invested over the entire trend period.

### **1.3 History of the Stock Market**

The stock market has been around for hundreds of years, some say starting during the 12<sup>th</sup> century in France. The courratiers de change would manage and regulate debts of communities on behalf of the banks. These men were the first brokers of their time because they dealt with trading of debt. Others say it started in 13<sup>th</sup> century with the Merchants of Venice. Bankers within Venice started trading government securities. This type of trading was adopted

by countries like England. One journalist says it started with trading companies in the 1600s. One example of this is a Dutch trading company called Vereenigde Oostindische Compagnie. This trading company was a very profitable company which seeks profit in trading spice from India to the Far East. By the end of the company in 1799 there were 10 million Dutch guilders in debt. These ways of trading stocks, securities, and goods all led to the modern day stock exchange.

Alexander Hamilton who was the U.S. Secretary of Treasury for the United States studied the stock exchange in Britain and thought that it was very important to in maintaining an economy. During the Revolutionary War government decide to fund the war by selling bonds and government notes promising that they would pay profit during a later time. Around that time banks issued stocks and shares of companies to increase money. This was the beginning of the American stock exchange. During Hamilton's presidency he encouraged the development of the American stock market.

In 1792 there was a meeting of twenty four merchants in New York. They agreed to meet daily on Wall Street to trade stocks. This would be known as the New York Stock Exchange. Obviously most of the history of the stock market, stocks was driven by human labor. Analysts would trade stock and report prices to the public. During 1971 NASDAQ arrived as the first electronic stock market. NASDAQ could bring the public real time prices which no other could. They were also the first to bring Small Order Execution System which was a system of individual investors to buy or sell shares of 1,000 or less electronically.

Even though the stock market changed history for the best there were troubling times that resulted from it. An example of this was the 1929 stock market crash. The crash began on Black Thursday, October 24 1929. 13 million shares of stock were traded on that day resulting in a

quick drop in the stock prices. One reason was that investors would borrow money to buy stocks from brokers. They would buy 10% and borrow 90%. When the stocks would fail investors would default the payments and the money would be lost. One last reason was slowing economy. Consumers weren't buying goods at a high rate anymore. This affected the companies which the affected the stock prices. Another stock market crash was the stock market crash of 1987. Between October 14<sup>th</sup> and 19<sup>th</sup> the market dropped more than 30%. Causes of this crash were derivative securities, computer trading, illiquidity, U.S. trade and budget deficits, investing in bonds, and overvaluations. The stock market crash of 2008 was the most recent. This crash was due to exposures of securities of loans and credit swaps which resulted in bank failures.

#### **1.4 Reasons for choosing project**

While researching possible Interactive Qualifying Projects, we knew what area of topic that we wanted to research our project in. We looked at Technology and Environment, Health Care and Technology, Law and Technology, Energy and Resources, and Economic Growth. We really wanted a topic that we relate best to what we wanted as a career after college. We really wanted the topic to relate around the business or financial field. So out of those possible choices Economic growth, stability, and Development was the best for us. Economic growth IQP gave us the financial side of business with the project that we wanted to pursue.

Both of our majors are Industrial Engineers. As industrial engineer we focus on the process of improvement, reducing cost and time, and also serve as the bridge between engineering and management. The IQP that we picked goes really well with our majors and possible careers that we may have in the future. Within the process of finding projects to do, we were told you don't have to pick a project that has to deal with your major. That we should pick something that interests us the most. We thought that picking a project that may relate somewhat

to our major or deals with a type of career that we would want later life would be most interesting to us. We also thought having the economic growth IQP on our resumes would look good. We also thought that having the knowledge of the stock market learned from this project would make us more rounded for our future jobs in business, finance, or business based engineering job. Lastly with relating to our major and future careers we thought that learning about the stock market now would improve our ability with buying and selling stocks in the future.

The most important reasons for choosing the economic growth, stability, and development IQP because we thought it would be fun and most interesting to us. Projects like stem cells for example wouldn't be fun to research. We would have to push ourselves to work on the project. With our project its' fun to work on and we know that this is something that we will need to know for the future and actually will use. Even though we don't use real money we still see it as something is at stake with winning or losing fake money which makes the project more exciting for us to work on. If you can't enjoy what you are working on you can't put 100 percent effort into it and you can't get the most out of yourself. With this project I think we will

## **Chapter 2: Stock Market Trading Methods**

There are several ways of investing and specific strategies to use to help gain money. Whether in the money or other taking other options, investing and carefully allocating the money is an extremely important prerequisite for getting a gain in the future. These types of methods will be meticulously discussed in this chapter. As the simulation continues, we will try to implement these techniques within our research and give a final analysis of a combination of the simulation and the techniques listed here.

### **2.1 Income investing**

As in any type of investing, carefully allocating money is one of the most important steps into creating a good portfolio. This holds true for income investing.

Income investing is a simple to understand process but doing it correctly takes practice and careful planning. For a lot of people who do income investing, it can be a source of income for the household, or just a way for people to make more money on the side. The basic principle of income investing is for people to generate an income based on a carefully thought out portfolio which offer reasonable to very low risk. In any case, it is extremely important to understand the current economy and the market trend to get the highest possible gains for the investment. However, it is impossible to make a portfolio that is completely loss proof. Depending on the market trends and the stock market, investments may not bring a large return or a profit at all.

First and foremost, understand your goals and what you want to accomplish is the first step in creating a profitable portfolio. The portfolio is in other words a plan and step-by-step personal guide to dividing the investment. Due to market trends and uncontrollable events, it is

impossible to have a loss proof portfolio; however, there are ways to help prevent overall losses. The only way to make prevent overall losses is to make your portfolio diverse as in make sure your assets are spread across several different strategies so that if one falls short the other can cover up for the loss.

The first way to make sure your portfolio is developed, is to invest into dividend paying stocks. Dividend paying stocks are stocks that pay the owner of a stock once the company pays out. Successful planning can lead to large returns; however, you have to make sure the company in which you are investing has a good record of positive growth. This is a good plan because the owner could receive dividends even during hard times in the economy.

There are several other options that can be included in the portfolio such as, getting bonds, investing in real estate, person to person lending, and so on. However, a lot of these choices have high risk and should be invested in with proper planning. They are a good way to balance out the portfolio to help with any losses that can arise.

## **2.2 Growth Investing**

Growth investing is when investors invest in companies that show above average or show growth potential. The investors look to make higher capital gains from higher share prices. Growth investing is different from that of value investing. In value investing the investors look to trade the shares for less than what they are worth. The current value of the share might be not as high as the worth of the share. This is when the investors will make their money. With growth investing the investors will buy in companies that are selling at higher worth. The investors believe that these companies value will exceed their current one and will end up making money off of it. Growth investors usually look at younger companies rather than older ones. With



younger companies their growth is faster unlike older companies whose growth has slowed down.

There are simply methods to investing with the growth investment strategy. First is to follow the price to earnings ratio. The price to earnings ratio is the earnings per share divided by the price of the stock. This is helpful to investors because it will tell how the stock may do in the future. A high price to earnings ratio for example means that the company is overvalued meaning the company will earn more in the future. Growth investors look at companies that have competitive advantage over the companies within their industry. They also look at leaders of companies who have had successful companies previously. Investors believe that these companies have the best chance to succeed in the future which would give higher returns.

The benefits of growth investing are the return on investment in the short term and also hitting on the next huge share for example apple or Google. Growth investors buy stocks before they have become big. The cost of buying shares for these companies are very low and growth investors know that these companies have a good chance of growing quickly. The investors then will sell when the stock is at its max growth. This will gain the investors a lot of returns and takes away the risk of the price dipping while in the long run. As for the second benefit of hitting on the next huge company, this is done by growth investors primarily looking at companies who have new technology and that are the leaders of their industry. The more companies the investors invest in the better chance that they hit on the next huge company. If they do hit on that company there is a lot of money to be made from it.

With growth investing also come disadvantages. There are four primary disadvantages to growth investing; high volatility, substantial research, long term, and choosing the wrong company. One of the main advantages of growth investing can be a disadvantage. When looking

at a growth stock you look at the high price to earnings ratio which means the stock may grow quickly. At the same time the stock's price earnings ratio may change and the stock may decrease as fast as it grew. To find the best company that you think benefits you the most you will have to research those companies. This may become a disadvantage because if you don't research correctly you may end up choosing the wrong company. Choosing the wrong company can lose a substantial amount of money for the investors. If those investors are wrong about a company there is a good chance of not gaining that money back. Using this strategy in the long term may lose you money. The company you choose may be doing well and you choose to stick with it for the long term. The longer you stick with a company the more likely the chance that the company may decrease in value losing you money.

## **2.3 Value Investing**

This type of trading strategy is for people who critically look at the current value of stocks and see which ones are undervalued or in other words, will have a larger value in the future. Investors specifically look for these types of stocks because they feel that the market's small changes do not affect the overall future of the stock. As a result, the profit comes because the investors bought the stock when the price was deflated.

The key to value investing knows the intrinsic value of the stock. However, there is really no correct answer to the actual value due to several price fluctuations overtime. By guesstimating, a good value an investor can reduce the change of a loss. Consequently, there an investor needs to consider a margin of safety. This just means that an investor buys at a discount big enough so that there is some room for error in the calculations.

In essence, value investing can be very profitable if an investor buys a stock that has a high potential in the long term. Berkshire Hathaway is a very good example of value investing, and the profits it can bring from knowing the intrinsic value of the company. The company started in early 1990 with a value of less than 7000 per stock. In just 20 years, the value of the stock went up to over \$120,000.

## **2.4 Short Term Investing**

It is common for short term investing to have investments laced in a stock or bond at most for a year or less, and then hopefully it brings a good profit within the allotted time. A short term investment focuses on high quality stocks that have low risk. In other words, a short term investment may not look at an overall large return on investments, but focuses on a very low risk so that an investment does not fail.

The concept is fairly simple; however, several large companies set up a short term investment fund in order to protect their capital and also increase the amount of cash they have in assets. For example, Microsoft is known for having a large amount of cash for short term investing. It was listed that Microsoft was known to have up to \$32 billion in cash possession by the end of 2005.

One of the many advantages to short term investing is using it as an investment strategy to make quick gains on the money invested into a security bond, whether it is stocks or some other sort of investment. When calculating the gains, it can exceed what someone may get from a normal savings account. However, there are more risks to short term investing because of comparatively higher risk ratio. The higher risk ratio means that there is also a chance for the investment to go south, which would end up in a loss.

To counteract these problems and minimize the risks involved, the most surefire strategy, just as any other strategy, is to have a portfolio that has almost self-insured from large losses.

## **2.5 Long term Investing**

A long term investment is when the investor plans to keep the investment whether it is stocks, bonds, or even real estate or a long period of time. A long term investment is different from a short term investment in that a long term investment plans for the long run. Short term usually only holds for one year then is sold. Like any type of investment there are benefits and also risk.

The three main benefits to long term investing are Maximizing Wealth, Preventing Costly Mistakes, and lowering your risk. The amount you invest, your return on investment, and how long your money compounds will determine how much money you will make. The earlier you save and invest your money the more time your money has to compound. The rule of 72 is a good rule to go by when investing. If your rate of interest is 9% it will take 8 years for your to double. The biggest mistake of long term investing is exiting at the peak and then entering at the trough. Trying to time the market is the correct strategy. For example as we can see in Figure 2.1 if you miss trading on the top 40 days of the market in a 20 year from 1990 to 2009 you will lose 1.8%. The last benefit is lowering risk of investing. As we know you can't take out all the risk of investing, but if you can find the lowest risks with the highest return, your investing will go a long way. Finally lowering your risk, the best way to do this is to go with the longest holding period. Going with a 10 year or even 20 year holding period with lessen the chance for negative returns. There has never been a case where there has been negative returns for a 20 year holding period so that if the best one to go with.

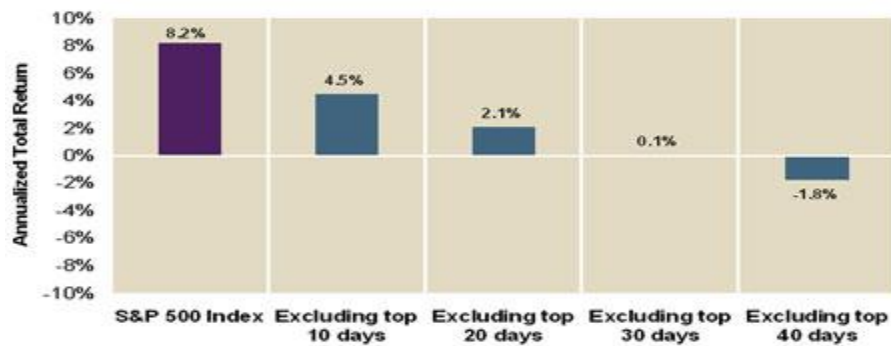


Figure 2.5.1 Returns Excluding top market days.

Figure 2.2 shows the length of periods and how much percent of return the investor gains with holding investment for that length of time. As the number of years for the periods increase the rate of return decreases. We also see that the negative rate of returns decrease as well the longer you hold the investment for. By holding for a 20 year period the rate of return is lowest, but there is no negative rate of return.

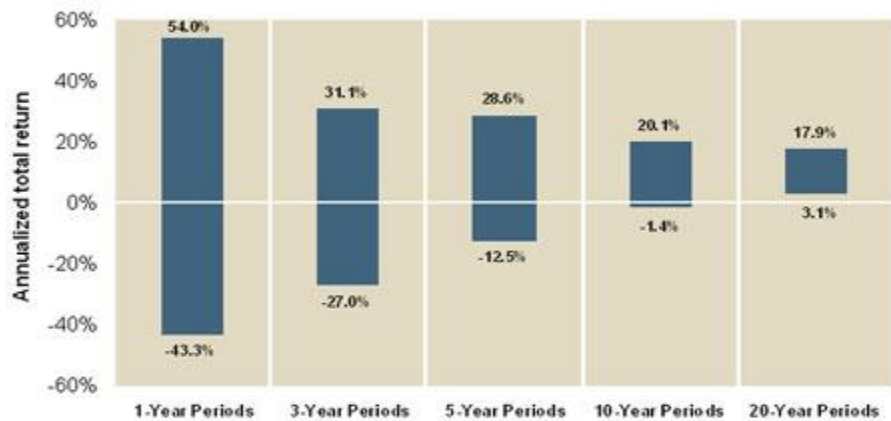


Figure 2.5.2 Length of holding periods and their returns.

With benefits come disadvantages. One disadvantage of long term investing is that it isn't good for meeting living expenses for the present time. Obviously when using long term investing

you are planning for the future and aren't going to use those investments for the present time. The second disadvantage is when holding onto a company for such a long time there are higher risks that the company can decrease in value or become less profitable. This is ultimately hurt your profit in investments because the price of shares would go down if those things happened. The third disadvantage is when investing in bonds, the bonds value may sometimes decrease when the interest rates rise.

To succeed in long term investing you must have a strategy. The best strategy for long term investors is the buy and hold strategy. This is what long term investors are best known for. This strategy is exactly what it sounds like. Investors will buy shares of a company and hold them. They believe that over the long run prices will keep on growing even if in the short run doesn't show that. Even though looking at the past shows that this strategy works, in the future it may not be the case. As we can see in Figure 2.3 buying and holding looks to be the best strategy for long term investors. We can see that investing money in 88' will be profitable when 08' comes along. The investors made double the money they invested. Even though the graph shows declines in the market the investors will hold on because they believe that the market will recover.



Figure 2.5.3 Long term investing.

## 2.6 Penny Stock Trading

Penny stock trade is the trading of shares for less than \$5.00. There is very high risk in owning penny stocks that's why most investors will stay away from them. Penny stocks usually with change in rate very rapidly. Usually with stock prices this low the companies are usually closes to being bankrupt or not in the best financial shape. Like we have stated in previous trading methods with high risk comes high reward. If the share ends up doing well there is a lot of money to be made.

Like any type of method to trading stocks, there are tips for each one. The first tip for penny stock trading is to always take profit. You may want to wait for the stock to it its peak so that you can make the most money. As an investor you can't predict what the peak is going to be and when it's going to peak. You may be successful with this strategy of waiting till the peak then trading, but most of the time you will fail. When taking profit you always come out ahead. The second tip is to not chase a running stock. A running stock is a stock that has made its big movement. Wait for the stock to come back down then buy shares in it. If you are going to buy shares within that company look at the companies background first to see if there is any evidence to show if the stock will continue growing. The last tip is not to invest more than you can lose. This means if you see a penny stock that you think is worth buying more shares and you end up buying shares with money you don't have. There is always a chance that the stock will decline as fast as it grew.

The main disadvantage to penny stock trade is an obvious one. People may look at a penny stock and think that there must be a reason for the stock being so low. There is are two reasons for this. One is that it is a new company and just starting off. The second is that it is a company that is doing too well and is in financial trouble. This is a huge risk to penny stock

trading. The risk to buying shares within a new company is that the chance that the company becomes successful is low. If you end up buying shares from a company that was established, but because of financial trouble there isn't a guarantee that the shares will get back to where they were. Another disadvantage is that penny stocks are endorsed by people to give positive feedbacks on the stock. This may be misleading and get the investors into trouble.

## **2.7 Day Trading**

Day trading is when the buying or selling of stock during the day with the shares rarely being held overnight. A common type of day trader is the pattern day trader. A day trader is one who buys and sells a share more than 4 times within a 5 days period. Even though day trading is a style of trading there are also trading styles within itself. Short term trading is a style of trading within day trading. Those who use day trading will only keep the stocks for few hours or even as little as a few seconds. Long term swing trading is when the investor will hold the share for most of the day then trade it away. Within the styles of trades there are types of trades that take place. First there are trend trades; this is where there is buying when the prices of shares are going up. There are counter trend trades; this is where selling if the prices are moving up. Lastly there are ranging trades when the trades are going back and forth between prices.

The advantages of day trading are no overnight risk, increased leverage, and profit in any market direction. Since you aren't holding the stock overnight, the events that happen between the closing price and the opening price don't affect your shares. Investors will usually gain profit not matter what direction the market is going in. The investors do this by selling shares using the swing trade method. Once the investor sees the price start declining they will get out of it with a profit.



There are also disadvantages with the day trading method. A big disadvantage that I see is that trading goes on from 8 to 4. For most people it is almost impossible to keep up with their shares within the time period. Most people are working during this time and can't give them adequate time to buy and sell shares to make profit. Another disadvantage is missing on the overnight gains that take place. As we talked about previously with advantages being that if the market takes a bad hit it can be an advantage to miss those because of no overnight holdings. This can also be a disadvantage if there are huge gains to be had overnight as well.

## **2.8 Technical analysis vs. Fundamental analysis**

Technical and fundamental analyses are both main ideas and school of thoughts in the financial world. They both have a strong presence in defining portfolios and setting up securities that have become very successful. Technical analysis uses the previous price change to determine the future of the stock based on the connections that have been made. On the other hand, fundamental analysis looks directly into the present economy or the fundamentals and how that will affect the financial market. There has been criticism on technical analysis; however, we will look at the difference between both topics and how using advantages from both can make a strong portfolio.

Technical analysis is completely different from fundamental analysis. These types of analysts do not look at the value of the company or the "chartists" of the company; conversely, they look at the price value and the movement of the market over time. Technical analysis primarily studies the supply and demand of the market, in other words, it studies the market itself and tries to determine the trend of the market based on the previous market trends contrary to the components or the factors that change that are a part of the market. In further detail, technical

analysis does not focus on the value of the current security, meaning it doesn't matter whether it is undervalued, but how it will be in the future. This field is based on three assumptions: the market discounts everything, price moves in trends, and history tends to repeat itself.

To describe these areas of technical analysis in more detail, first and foremost technical analysis is criticized in several aspects in its theory. In its first ideology, that the market discounts everything, it believes that the current price and the future prices of the security takes into account all the fundamental values and the components of the market, making it futile to calculate the fundamental portion separately. The second assumption of technical analysis is based on the fact that price movement tends to follow a specific trend. Once the trend has been established, the price movement will most likely follow this pattern rather than against it. Most, if not all trading strategies are based on this assumption. The final assumption is history tends to repeat itself, mainly price movement. It is believed that people to participate in the market usually tend to react the same way based on a similar spur or change in the market. Technical analysis uses chart patterns to understand the price movement trend. Many of the charts presented have been used for over a hundred years; however, it is thought that regardless of time, the market will tend to have the same price fluctuations and that it would eventually repeat itself. Again, several problems can be pointed immediately if one doesn't believe in these assumptions. Comparatively, fundamental analysis focuses on a more meticulous level of the market and the business.

Fundamental analysis is believed to be the cornerstone of stock market trading and is such a broad subject that has several underlying techniques and strategies involved, much different from technical analysis. It focuses on the intrinsic value of the business by finding the value of the business, the future prospect, and how the market will affect it. This type of analysis

serves to answer several specific questions about the business that one may be investing in. Essentially, asking oneself the question, is the company a good investment?

As can be imagined, there are several different ways to find the value of the company; however, there is more than just number crunching. As described, fundamental analysis is an extremely broad subject and can be organized into two separate areas – qualitative and quantitative. Quantitative fundamentals are measurable characteristics of a business, basically the financial statements that define the value of the company which include the profits, debts, projected growth, etc. On the contrary, qualitative fundamentals focus more on the indefinable, mainly the people on the board, the management styles, name familiarity, and the company's possessions.

Bringing together the qualitative and quantitative, we strive to find the intrinsic value of the company. There can be no real value of the company, but if the company is correctly analyzed a true value can be originated, it is called the intrinsic value. One big assumption of fundamental analysis is that the price value of the does not reflect the intrinsic value of the company. Thus leading us to a second assumption, stating that fundamental analysis will represent the intrinsic value of the company in the long run. Consequently, there are problems with fundamental analysis as there are several intangibles to be accounted for and that the future is never really certain no matter how sound the math may seem.

Knowing the differences between technical analysis and fundamental analysis is extremely important and can be very advantageous to someone trying to invest in the market. Comparatively, both ideologies are like oil and water; however, if pieces of each are taken and combined together, it can create a very strong portfolio and have create a positive result for the investor in the future. Firstly, the differences must be stated before we can critically analyze the

greatest aspect of each. In an overview, technical analysis looks at the price movement of the company and the previous trends so that it can determine the future. In opposition, fundamental analysis attempts to quantify a value of a company by looking at the more detailed parts and several critical aspects to get an intrinsic value.

An assumption from technical analysis states that the current price value of a company represents all fundamental values of a company, otherwise, the price would be different. And in opposition, fundamental analysis clearly states that the price value of a company does not represent the intrinsic value of a company. The second big difference between the two is the time difference of trading. The process and analysis of each type makes it such that technical analysis is affiliated with short term trading and can be determined to the minute, while fundamental trading does not look at anything nearly that short term and focuses more on long term trading with up to a year or longer.

Although both are known to be complete opposites and analysts criticizing both ideologies, the question is whether both can exist at the same time. While there have been no real strategies laid out correctly identifying both fundamental and technical strategies, using parts of each can be seen useful. For example, if a fundamental analyst would like to know the correct time to enter the market or when a stock is undervalued, using technical strategies would help him do that. Similarly, a technical analyst could reaffirm his own technical signals by using the intrinsic value of a company to know when it would be the best-case scenario to buy or sell.

## **Chapter 3: Trend Following**

Trend Following is a strategy that looks at long term moves. Trend is very similar to that of Swing strategy. The biggest difference is that Swing is more of a short term and trend is long term. An investor can use price calculating, moving averages, and channel breakouts to predict what direction the market will be going in. The investor will look at the slow moving average and the fast moving average and once those two averages meet and cross the investor will know exactly if to buy or sell. Unlike that of the Swing strategy the investor won't immediately buy or sell stock when the market turns. The investor needs more of a long term pattern that the price per share will keep in that direction.

The biggest advantages of trend following is that it gives you the most accurate forecast of what direction the market is going in. The best way to do this is by using the moving averages. This is very complicated to compute and most investors have programs to do this for them. Another way is by counter trend which the investor will pick a certain number of days in which the market direction is moving to trigger whether to buy or sell.

### **3.1 Mayank's Company Selection**

For trend following we chose to use British Petrol (BP). BP has been an oil giant for several decades spanning and influencing its identity across several countries. Until recently, BP sadly went through a large oil spill on the coast of the United States and disrupted the sea life and the environment along the coast. Unfortunately, this was not the only problem, it was facing several allegations, lawsuits and threats to clean up the mess it had created. As the news about this spread, its stock price fell simultaneously to one of its all-time lows and faces many financial problems. BP has however been very proactive about cleaning up the mess it created in the oil

spill and continues to give a positive message about its name throughout the world even though it went through this crisis.

For the other trend following simulation, we chose Sony Corporation. Sony Corporation is a large multinational company most referred to as Sony by the general mass. Headquartered in Japan, it is one of the world's largest media corporations, and leads in production of electronics with a worth just over \$77 billion. As commonly known Sony Corporation does its primary business through electronics and is the parent company of the Sony Group which is comprised of its seven operating segments: Consumer Products & Services Group, Professional & Device Solutions Group, Pictures, Music, Financial Services, Sony Ericsson and All Other. While this makes Sony one of the most well rounded electronic companies in the world, its several business operations include: Sony Corporation, Sony Pictures Entertainment, Sony Computer Entertainment, Sony Music Entertainment, Sony Ericsson, and Sony Financial.

Aside from its heavy influence throughout the world, as sponsors and business leaders, a lot of the recent attention has come from the younger generations interested in the gaming and music world. Sony has had presence in the video game craze since the late 1980's and has continued to influence generations from its games and system consoles for decades after that. While the Apple iPod has permanently engraved its name in history, Sony has not been as resourceful in the music world. However, that did not stop its production of HD televisions, computers and other hardware that have become social standards in our generation.

With the recent economy Sony Corporation has not been growing at such a glamorous rate, and has been affected by the downturns most companies are facing today. However, we can expect to see Sony bouncing back to the name it once held as it is releasing products in technological advances such as 3D televisions, movies and video games.

## 3.2 Mayank's Simulation

Based on the past year, BP has fallen in one of its worst financial downturn in its life. However, BP owns up to its problems and is trying to fix the mess it has created. Just a few months ago BP hit its lowest point and has been on a mostly positive turn after that but is still struggling. The graph below shows the first week of trading for BP. As we can see here, during the first week of simulations the BP stock price value is dropping. Because this is trend following, we figure that since the price value is going up, it would make sense to invest in this company at this very time and hopefully get an investment in a short time.

### 3.2.1 Week 1 trading

In summary, the first day of simulations we chose to wait and see what the price value was going to be for the next day based on the charts we had examined and the way the price value was behaving. On the second day, the price per share had dropped so we decided to buy 500 shares of Sony Corporation, which the total was \$12,740. Sadly, the price kept on falling, and just in case, we sold at a loss on the final day of the week. The reason was not because we wanted to take a loss, but because of the strategy presented in trend following, we thought it was the best decision considering the price was falling. Because of this, when the price would start to increase, that would be the best time in order to buy.



Figure 3.2.1 BP Week 1

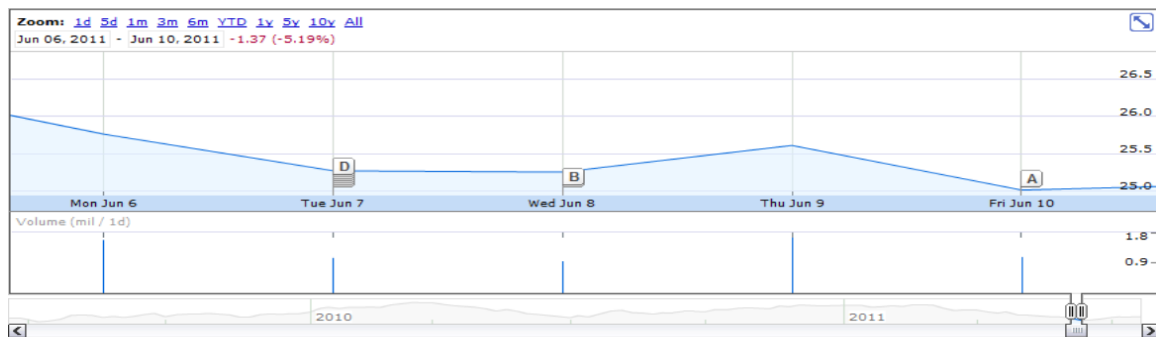


Figure 3.2.2 Sony Corp one week view

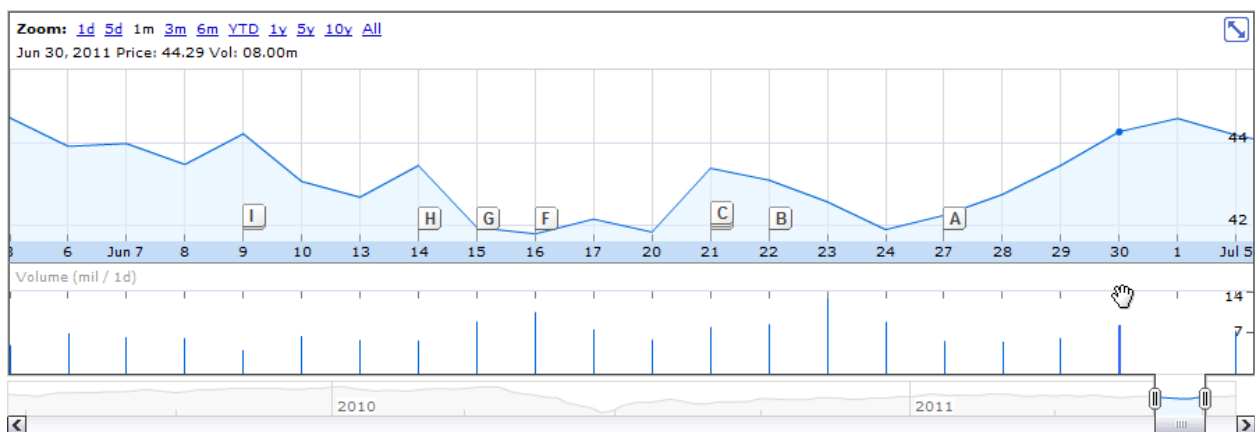


Figure 3.2.3 BP one month view



Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
							<b>50,000 each</b>		
06/06/11	Bp	Buy	44.75	500	22385		27,615	50000	
06/07/11	Sne	buy	25.48	500	12760		37,250	50000	
06/08/11	Bp	Sell	43.67	500	21825	-560	49440	49440	-560
06/10/11	Sne	Sell	25.35	250	6336.5	-42.5	43577.5	49957.5	-42.5

Table 3.2.1 Week 1 Trend Trades

### 3.2.2 Week 2 Report

During week 2, we decided to wait to buy until the price started to show some increase. This week had several fluctuations and there was no real consistency of the price value movement till later on in the week. At the end, we decided to buy 250 shares of Sony Corporation because the price started to show a positive gain. We could have chosen to buy more, but the way we were following the price, it would have been too risky to buy more.

The other stock BP has been going up and down on a daily basis; however, by the end of the first week and leading into the second it has stayed at a constant low. We hope that it will get better in the future. Since the price value of BP is depreciating, we thought that we would be best to sell a good amount of shares during the second week and wait till it reaches a good low to make sure that we buy the shares at a good price.

Week 2 – June 13 to June 17

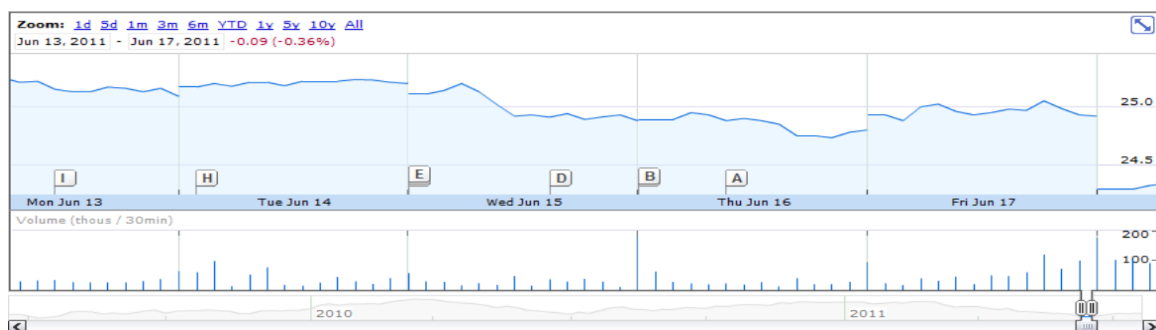


Figure 3.2.4 BP Week 2 View

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
06/15/11	Bp	Buy	42.7	250	10685		38575	49270	
06/17/11	Bp	Buy	42.10	500	10535		28040	49090	
06/17/11	sne	buy	24.95	500	6237.5		37360	49835	

Table 3.2.2 Week 2 Trend Trades

### 3.2.3 Week 3 trading

In this week, we could see a real price increase over the few hours and days we observed the stock market. This was a good week for Sony Corporation, so on the 21<sup>st</sup> we bought another 250 shares, well below the price for which we originally bought the shares on the first day of the simulation. This would make my total shares to 750. Although the table shows a very small gain, we are hoping that the price will start to increase in the future.

On the third week of BP, we found that the price was going up a good rate right at the start of the week. The problem was that because of the strategy we were using, we waited a few more days to sell. Based on the moving averages, it would make most sense to wait for the prices to go up because that was the current trend. As it happened, the prices again started to fall right after the first day and we ended up with a loss by the end of the week.

### Week 3 – June 20 to June 24



Figure 3.2.5 BP week 3 View

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
06/21/11	Bp	buy	43.01	750	10762.5		17277.5	49535	
06/21/11	Sne	buy	24.30	750	6075		31285	49510	-490
06/24/11	Bp	Sell	42.28	250	21130	-365	38407.5	48977.5	1012.5

Table 3.2.3 Week 3 Trend Trades

### 3.2.4 Week 4 trading

This is the fourth week of trading, and it was another good week as the prices were all increasing. Because of such a jump, we decided to buy another 250 shares of Sony Corporation, increasing my total share to 1000. We could have bought more, but the total cash we had was just under half of my total, which we had made sure that we would not want to go below that benchmark. As the week progressed, the price value kept on increasing and there was a high jump in prices during the middle of the week. We kept on observing, and we hope that the prices continue to rise.

Just like Sony Corporation, BP had a very profitable week. As we can see from the graph, the prices had a constant increase and will give me a good return later during the next week.

### Week 4 - June 27 to July 1



Figure 3.2.6 BP Week 4 View

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
06/27/11	Sne	buy	25.29	1000	6322.5		24962.5	50252.5	
06/28/11	Bp	Buy	42.58	750	21300		17107.5	49042.5	

Table 3.2.4 Week 4 Trend Trades

### 3.2.5 Week 5 trading

In this week, Monday was a national holiday, so trading was not possible and was limited to the other four days. That however, did not affect the price in a negative way at all. It started to increase at a constant rate and made a price high from the middle to the end of the week. The price did fall; however, it was only near the last few hours on Friday and I decided not to sell at that point.

For this week, I only traded with BP as it showed many ups and downs and I was able to pick the correct point when the market was going through the changes. As the tables show, I was able to get a good profit for BP, almost getting to a total profit of \$1000.

### Week 5 – July 5 to July 8



Figure 3.2.7 BP Week 5

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
07/05/11	Bp	Sell	44.66	0	33485	1550	50592.5	50592.5	592.5
07/06/11	Bp	Buy	43.47	500	21745		28847.5	50582.5	
07/08/11	Bp	Sell	44.28	0	22130	395	50977.5	50977.5	977.5

Table 3.2.5 Week 5 Trend Trades

### 3.2.6 Week 6 trading

During the last week of trading, the prices kept on increasing. I decided not to buy more in worry that the prices would dip and I would lose any profit that I would make. As it happened, during the last day, the price did fall on the last day of the simulation, which is when I was forced to sell what I had. Even though it fell I had only lost \$120 from the previous day, which was the highest point in the simulation history. At the end I had made nearly \$2000 in total profits.

### Week 6 – July 11 to July 15



Figure 3.2.8 BP Week 6 View

## BP One month view – June 15 to July 15

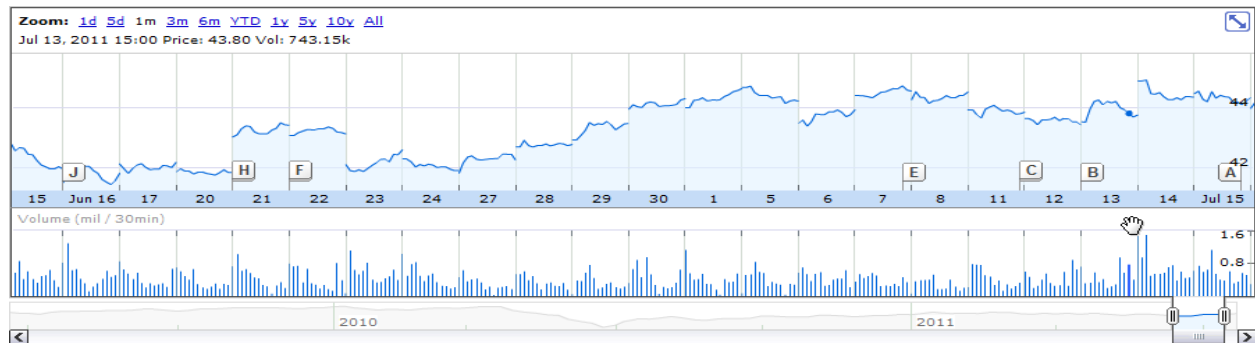


Figure 3.2.9 BP One Month View

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
07/13/11	Bp	Buy	43.52	500	21770		29207.5	50967.5	
07/15/11	Bp	Sell	44.47	500	22225	475	51432.5	51432.5	1432.5
07/15/11	Sne	sell	26.95	0	26950	-120	51912.5	51912.5	1912.5

Table 3.2.6 Week 6 Trend Trades

## 3.3 Mayank's Results

Sony Corporation made a good profit for me in the end. I had a total of nearly \$2000, which is a good amount of gains considering this was only a 6-week simulation. This was also a trend following company selection, which meant that there were only a limited number of resources I could use in order to make the best judgment of when to buy or sell. During the middle weeks of the simulation, July 4<sup>th</sup> had occurred. The few days before and after, most companies that sell products to the public usually have a large sale to attract customers to buy their product, which Sony had taken part of. I noticed when I looked at the charts of the price value that it had increased just at that time and kept on increasing as time went on right till the end of the 6 weeks. But because this was a trend following, I could not use that to my advantage and hopefully make a profit out of it.

Through the experience gained, when I review the simulation of this company over the past six weeks, I find that I could have nearly doubled my profits. Trend following is a very technical way of approaching the stock market and buying and selling shares. Although I find that it shows some disadvantages, if the strategies are utilized correctly a large amount of profits can be made. More so, the largest part of this experience was to know how much money an investor should risk at any given time. If I had been a little more risky with the money and put more faith into the strategy that was presented in me, I find that I could have made just over \$3000 after doing calculations.

In conclusion, I find that trend following is a good strategy to use for companies that are less risky to invest in. My personal reasons for this are due to the results I came up with in the simulation from the past 6 weeks. Using trend following, on a less risky company allows an investor to be more risky with the money that they have. Prices of shares are bound to change and are out of the control of the investor; however, this strategy allows an investor to analyze charts and graphs available for a company so that he or she is able to come to a conclusion, whether to buy or sell. For example, I had decided myself that I would not use more than half the money I have allocated for each company. I realized that with the company I had picked and the strategy I am using, in theory, this allocation I had set would not be necessary, as it would only put a ceiling on my total profit potential. This however, is not to say to spend all the money an investor has, but that it gives an investor extra room to invest if the shares being traded are doing well.

### 3.4 Patrick's Company Selection

#### Google Inc. (Goog)

The Company that was selected for the simulation for trend following was Google Inc. (Goog). The Trend following strategy is when the trader looks at the market trends. Trend Following is similar to Swing Trading, but the difference is that trend following is more of a long term investment. One strategy is the moving average strategy. This is probably the most popular strategy when using Trend Following. With moving average strategy, the trader looks at the fast moving average and the slow moving average. When these two averages cross each other this will determine whether to buy or sell the stock. Another type of strategy within the Trend Following is the four days down strategy. This strategy is just as it sounds. The trader will buy shares when the price of the stock has declined for four days in a row. The buyer will then sell the shares when prices of stocks have rises for 2 days in a row. Parameters of how many days before buying and selling can be chosen by the trader.

Google first began in March of 1996 with the creators being Larry Page and Sergey Brin both of which were students at Stanford. They first developed a search engine called Backrub, but only operating on Stanford servers. The Backrub search engine was too big for Stanford operators at the time so Page and Brin switched servers and calling it Google. Page and Brin then moves to Susan Wojcicki's garage as their primary workspace. On September 4<sup>th</sup> 1998 they filed for incorporation and later opening their first bank account under the name Google Inc. Google Inc. is the leading search engine to this day.

In Figure 3.4.1 we can see the prices of the shares and volume of shares that Google Inc. has obtained over the past seven years. In the chart we can see the prices of the shares decreasing and increasing throughout the seven years. What also can be seen is that the volume in 2004 –



2005 made huge jumps throughout those years then in the later years. During those later years volume was half of what it is during 2004- 2005 even though the shares of prices are at their highest. Another thing that can be noticed within the chart is the prices of Google Inc. during the time that the market was doing its best. We can see the prices per share gradually grew throughout that time. What also can be noticed in the graph is the decline in price during the 2008 recession. Google took a huge hit in price during this time.



Figure 3.4.1 Google Inc. Prices of shares and volume.

There was no particular reason that we choose Google Inc. as a stock to follow for Trend Following. We tried to use different types of industries for each strategy. We also tried to use companies that had different share prices. Google Inc. share price starting out was in the \$500 which was a relatively expensive stock compared to that of other stocks that we choose. We wanted that type of variety for each company so that we could have the best understanding of the stock market.

## Nike Inc. (NKE)

The second company that was selected for Trend Following was Nike (NKE). Nike was first created by Phil Knight and his coach from University of Oregon Coach Bill Bowerman during the 1960s. Their first sales were out of the trunk of their cars. First known as Blue Ribbon Sports then later in 1978 changing its name to Nike. Nike being the name of the Greek God for victory.

The headquarters to the company is located in Portland Oregon. Nike employs over 30,000 employees throughout the world. Nike is currently one of the world's best known companies for the simple fact that they endorse the world's best known athletes. Nike has turned to athletes like Michael Jordan, Tom Brady, and LeBron James to name a few to endorse their products. Many young people today relate Nike with these athletes. These results in people wanted to buy their products.

### **3.5 Patrick's Simulation**

The first step to the simulation was to determine how much money we would want to spend for each company. We decided that we would want to spend between \$200k and \$300k per company with money leftover in case we wanted to buy more stocks. The total amount of cash we decided to start off with was \$700k. The second step was to determine how we would use the Trend Strategy. The Trend strategy is a long term investment strategy that looks at long term trends in the market. This strategy is very similar to that of Swing, but the difference is long term vs Short term. Trend strategy has you buy/ sell shares right depending on the trend. There are different ways of determining what the trend is. The most common is moving averages. This is a very complicated to figure out. We decided to use a counter trend in which we would sell when the market was down and buy when the market was up.

Our first week of trade for the companies that Pat would be trading with was on the week of June 6<sup>th</sup> – June 10<sup>th</sup>. The first company that we bought shares in was Google Inc. (Goog) which took place on June 6<sup>th</sup>, the first day of the simulation. As we can see in Figure 3.5.1 Google Inc. Week 1 Market Prices the week started off \$528.06 and ended at \$509.51. The Trend strategy had us selling shares on Thursday June 9<sup>th</sup> because the market has been down for two days in a row.

As we can see in Table 3.5.1 Week 1 Trend Simulation that we bought 500 shares into Google on June 6<sup>th</sup> at \$528.06 for a total cost of \$264,040 including the trading fee. The second transaction that we made during this week was on June 9<sup>th</sup>. The market during this time as down for the second day in a row. On June 9<sup>th</sup> we sold 500 shares of Google Inc. at \$516.73 for a total amount of \$258,355. The profit/loss between these two transactions was \$5,685.



Figure 3.5.1 Google Week 1 Market Prices

Our first week of trade for the companies that Pat would be trading with was on the week of June 6<sup>th</sup> – June 10<sup>th</sup>. The second company that we bought shares in was Nike (NKE) which took place on June 6<sup>th</sup>, the first day of the simulation. As we can see in Figure 3.5.2 Nike Week 1

Market Prices the week started off \$80.67 and ended at \$79.66. We did not do any other trading this week because of the market did decrease for two days in a row.

As we can see in Table 3.5.1 Week 1 Trend Simulation that we bought 500 shares into Nike on June 9<sup>th</sup> at \$80.67 for a total cost of \$298,479 including the trading fee. Thus was the only time during the first week that we bought or sold shares of Nike. By the end of the week our total assets was at \$694,315 which gave us a total profit of a loss of \$5685.



Figure 3.5.2 Nike Week 1 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/6/2011							\$700000	\$700000	
6/6/2011	GOOG	Buy	\$528.06	500	\$264040		\$435960	\$700000	
6/9/2011	NKE	Buy	\$80.67	3700	\$298489		\$137471	\$700000	
6/9/2011	GOOG	Sell	\$516.73	500	\$258355	5685	\$395826	\$694315	5685

Table 3.5.1 Week 1 Trend Simulation

The second week of the Trend Simulation took place during the week of June 13<sup>th</sup> – June 17<sup>th</sup>. The total cash at the beginning of the week was \$694,315 and the total profit was at a loss of \$5,685. As we can see in Table 3.5.3 Google Week 2 Market Prices, Google (Goog) started off at \$504.73 and ended at \$485.02. The market prices increased and decreased every other day

as can be seen below. During this week there were no transactions that took place as can be seen in Table 3.5.2 Week 2 Trend Simulation.



Figure 3.4.3 Google Week 2 Market Prices

The market prices for Nike during this week were very much like that of Google. As we can see in Figure 3.4.4 Nike Week 2 Market Prices the market started off at \$80.51 and ended at \$81.11. The market was fluctuating for most of the week. We sold our 3700 shares in Nike on June 16<sup>th</sup> at \$80.29 which can be seen in the Table 3.5.2 Week 2 Trend Simulation. We sold the shares during this time because this was the second day in a row that the market had been declining. The amount that we made from this transaction was \$297,063. The profit/loss between the last transaction during week 1 and this transaction that we made this week was a loss of \$1,426. This was the only transaction that took place during this week for Nike. By the end of the week the total cost and total assets were \$692,889 and the total profit was a loss of \$7,111.



Figure 3.4.4 Nike Week 2 Market Prices

Date	Symbo l	Buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/13/2011							\$395826	\$694315	5685
6/16/2011	NKE	Sell	\$80.29	3700	\$297063	1426	\$692889	\$692889	7111

Table 3.4.2 Week 2 of Trend Simulation

The third week of the Trend Simulation took place during the week of June 20<sup>th</sup> – June 24<sup>th</sup>. The total cash at the beginning of the week was \$692,889 and the total profit was at a loss of \$7,111. As we can see in Table 3.5.5 Google Week 3 Market Prices, Google (Goog) started off at \$493.15 and ended at \$473.87. This being the third straight week that Google Inc. has ended with a lower price than when it started out at the beginning of the week. The market mirrored that of the past couple weeks. The prices fluctuated from day to day, not really showing any trends to buy shares back into Google.



Figure 3.5.5 Google Week 3 Market Prices

Nike as like that of Google had about the same week as the previous one. The market price of Nike at the beginning of the week was \$83.23 and by the end of the week was \$81.15 as can be seen in the Figure 3.5.6 Nike Week 3 Market Prices. Again Nike fluctuated in market price for most of the week. The first and only transaction that we made was on June 20<sup>th</sup>. The previous Friday the market began to rise in price and continued to do so on the first day of the market week. This is why we bought 3700 shares back into Nike at a price of \$83.23. This transaction cost us \$307,961. By the end of the week the total assets and total costs were like that of the previous week, \$692,889 with a loss of \$7,111.



Figure 3.5.6 Nike Week 3 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Assets	Total Profit
6/20/2011							\$692889	\$692889	7111
6/20/2011	NKE	Buy	\$83.23	3700	\$307961		\$384928	\$692889	7111

Table 3.5.3 Week 3 of Trend Simulation

The fourth week of the Trend Simulation took place during the week of June 24<sup>th</sup> – July 1<sup>st</sup>. The total cash at the beginning of the week was \$692,889 and the total profit was at a loss of \$7,111. As we can see in Table 3.5.7 Google Week 4 Market Prices, Google (Goog) started off at \$482.74 ended at \$521.03. This was the beginning of a long upward swing the market would be making during the last couple weeks.

During this week we only made one transaction for Google. The only transaction of the week took place on June 28<sup>th</sup> as we can see in Table 3.5.4 Week 4 Trend Simulation. The market price began to rise at the beginning of the week. Tuesday was the second day that the market had risen so we bought 500 shares in Google at \$483.85. The total cost of this transaction was \$241,835. This was the only transaction of Google made this week.



Figure 3.5.7 Google Week 4 Market Prices

Nike during this week didn't have much trade action. For the most part Nike was fluctuating between prices. Even with the prices fluctuating as much as they did the market price



of Nike was slowly going in an upward slope. As we can see in Figure 3.5.8 Nike Week 4 Market Prices the beginning market price during this week was \$81.62 and by the end of the week \$91.82. Since there was no real trend to follow during this week, we didn't buy or sell any shares. Even though no transactions were made this was a productive week because the market prices made huge upward swings.



Figure 3.5.8 Nike Week 4 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Assets	Total Profit
6/27/2011							\$384928	\$692889	7111
6/28/2011	GOOG	Buy	\$483.65	500	\$241835		\$143093	\$692889	7111

Table 3.5.4 Week 4 of Trend Simulation

The week five simulations were for the most part much of the same as the past weeks simulation. The market and more importantly the market dealing with Google was still in an upward movement. The price per share of Google at the beginning of the week was at \$521.03 and by the end of the week \$531.99. As we can see in Figure 3.5.9 Google Week 5 Market Trends, Monday continued the climb in the price per share from the week before. This Trend

continued throughout the week, hitting its highest price per share throughout the simulation at a price of \$547.62. Google increased every day during the week five simulations except for the last day of trading during that week.



Figure 3.5.9 Google Week 5 Market Prices

Nike didn't have any transactions occur during this week either. Nike was still in an upward market trend. If we take a look at Figure 3.4.10 Nike Week 5 Market Prices, the price per share at the beginning of the week was at \$91.82 and ended at \$93.24. Even though no transactions took place this week; this week was very productive for our simulation.



Figure 3.5.10 Nike Week 5 Market Prices

Google shares during the last week of simulations fluctuated for most of the week. There weren't much stable trends in one direction during week six. This made it very hard to buy or sell shares during the week because there was no trend to follow to determine whether to buy or sell shares. The previous week, Google decreased in price per share to \$531.99 and continued this trend the following week on Monday July 11<sup>th</sup>. In Figure 3.5.11 Google market trends of week 6, we can see that Google decreased for a second day in a row to a price of \$526.95. The constraint of the Trend following tells us to sell if this happens so we sold the shares that we had in Google. We can also see that Google didn't make any drastic moves during most of the week. As we can see every other day the market moved upward or downward, except for the last day making a huge jump. Google started off the week at \$531.99 and ended at \$597.62.

We can see in Table 3.5.5 Week 6 Trend Simulation that we sold our last shares during this week. On July 11<sup>th</sup> the Trend strategy had us selling our shares at \$526.95 for Google. This was the second day in a row that the market was down. This is the last transaction that we made for Google during this simulation. The amount that we made off selling our shares was \$263,465. The profit/loss between the last two transactions that we made with Google came out to be a positive \$21,630. To this date our trend simulation total assets were \$714,519 which gave us a positive total profit of \$14,519.



Figure 3.5.11 Google Week 6 Market Prices

The last week of simulation for Nike was at its peak. Nike started off during the week at \$91.43 and ended at \$91.7. Like Google, July 11<sup>th</sup>, Nike had been down in market price for the second day in a row, we decided to sell shares at this time. We sold 3700 shares of Nike at \$91.43 for a total amount of \$338,281. The profit/loss between this last transaction and the previous one was \$30,320 which was the highest profit/loss we obtained during this simulation. By the end of the simulation our total cash and total assets was \$744,839 giving us a total profit of \$44,839.



Figure 3.5.12 Nike Week 6 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/11/2011							\$143093	\$692889	7111
7/11/2011	GOOG	Sell	\$526.95	500	\$263465	\$21630	\$406558	\$714519	\$14519
7/11/2011	NKE	Sell	\$91.43	3700	\$338281	\$30320	\$744839	\$744839	\$44839

Table 3.5.5 Week 6 Trend Simulation

### 3.6 Patrick's Results

At the beginning of the Trend Simulation we started off with buying 500 shares of Google at \$528.06 for a total cost of \$264,040. Throughout this whole simulation, the number of

times we bought or sold shares came out to be 4 times for a total of \$40 in commissions. By the end of the simulation we sold our shares at \$526.95 for \$263,465. With all the trades that we made the total profit for Google came out to be \$15,945. We calculated that if we kept the shares that we bought at \$528.06 and didn't sell those shares till the end of the simulation at \$526.95 we would have had a total profit of a loss of \$575. In our opinion this strategy did work for Google because of the huge profit total we obtained.

At the beginning of the Trend Simulation we started off with buying 3700 shares of Nike at \$80.67 for a total cost of \$258,355. Throughout this whole simulation, the number of times we bought or sold shares came out to be 4 times for a total of \$40 in commissions. By the end of the simulation we sold our shares at \$91.43 for \$338,281. With all the trades that we made the total profit for Nike only came out to be \$28,894. We calculated that if we kept the shares that we bought at \$80.67 and didn't sell those shares till the end of the simulation at \$91.43 we would have had a total profit of \$39,792. In our opinion this strategy didn't work for Nike because we would have made more money if we bought and held.

Over all we started off with a total cash amount of \$700,000 and total assets amount of \$700,000. By the end of the simulation we ended with \$44,839 making the total profit \$44,839. The percent that was made off the \$556,344 that we bought at the beginning was 8% return on investment.

## **Chapter 4: Swing Trading**

Swing trading has become a very popular method when trading. It uses ideas and strategies from technical analysis and limits the use of fundamental analysis. This type of strategy is mainly known for holding a position with some type of security bond for a short period of time, usually about one day to one week. It is similar to day trading but holds a longer duration of observation in the market to exploit patterns within a company's price value to find the best time to buy or sell.

As previously stated, swing trading does not use the strategies given by fundamental analysis, and is not concerned with the use of finding the intrinsic value of the company. Rather, it uses strategies from technical analysis and uses the actual price value of the security bond to seek out trends and patterns in the market. In this strategy, investors look to see a positive growth of the short-term price momentum usually within one to four days with a maximum of one week. To be able to trade with the best results over that given time, a trader needs to learn to move quickly. One major concern for traders that use swing trading is competing with large companies; however, larger firms do not have the time or the ease of using swing trading as a profiting strategy and therefore do not use it.

Swing trading uses very specific strategies from technical analysis in order to get the most gains. An investor usually finds specific patterns within a security bond and reads the price fluctuations, while monitoring it for the best time to buy and sell. Specific strategies use charts and line graphs in order to find the lowest value of the stock and the highest point, creating a trend to know when to buy and sell. For example, let's assume that an investor is thinking of investing in a company that is worth \$30. However he checks the price later and observes it at \$20. He sees this pattern continue of a few days and decides to invest when the price goes down

to \$20 and sells when the price goes back up to or nears \$30. However, if for some reason, the price is out of this cycle, it is advised that the investor not continue with this stock and look elsewhere as it is too much of a risk to invest in. This was a very simple example, but it uses the basics of what swing trading has to offer. While the stock market is clearly more intricate, simple trends can be extremely rewarding when it is broken down to an elementary level.

#### **4.1 Mayank's Company Selection**

Deutsche Bank is a financial service provider with presence in 74 countries and currently holds 21% of the market share, making it the large foreign exchange dealer in the world. The bank offers several products and services to different demographics and from people to large institutions and companies. Services include sales, trading, research and origination of debt and equity, mergers and acquisitions (M&A), risk management products, such as derivatives, corporate finance, wealth management, retail banking, fund management, and transaction banking.

The second company that we chose for swing trading was Target Corp. It has been a retail store for several years now but has gained popularity with the public and the market just a few years ago. It has expanded itself to several different states now and has presence internationally. It has several competitors in this market specifically Wal-Mart; however, it has gained much popularity and is taking a lot of the demographic Wal-Mart used to cater too. It states that it competes with other stores like Macy's and Sears.

## 4.2 Mayank's Simulation

### 4.2.1 Week 1 trading

During the first week of the swing trading simulation, we chose to get 500 shares of Target and Deutsche Bank. As with the previous simulation, I have also allocated \$50,000 for each company. Fortunately for us, we found that there was a difference in price between Deutsche Bank and Target Corp. However, the difference was only about \$10 in the stock price value as Deutsche Bank (DB) was higher. On the 6<sup>th</sup> of June, we bought the shares for each company but as we can see from figures 4.2.1 – 4.2.3 that the prices for both Tgt and Db decreased.

DB one month view



Figure 4.2.1 DB one month



## DB first week



Figure 4.2.2 DB first week

## TGT One week view



Figure 4.2.3 Target Week 1 View

## Week1

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/6/2011	Db	Buy	58.93	500	29475		20525	50000	
6/6/2011	Tgt	Buy	47.32	500	23670		26330	50000	
6/8/2011	Db	Sell	57.81	500	28895	-580	49420	49420	-580
6/8/2011	Tgt	Sell	47.06	500	23520	-150	49850	49850	-150
6/9/2011	Db	buy	57.07	500	28545		20875	49420	
6/9/2011	Tgt	Buy	46.99	500	23505		26495	50000	

Table 4.2.1 Week 1 Swing Trades

#### 4.2.2 Week 2 trading

During this week, we can see from table 4.2.2 that the prices for both companies have increased just by a little amount. Based on the strategy being used, we thought that it would make most sense to sell my stock at this price and wait to see if the price of the stock would increase or decrease at a later date. Overall, based on the increase of the price value, we gained \$450 during this week. As we can see from Target corp., the price value of its stock has increased but the reason why we had not gained any money during this transaction was because of the transaction cost of buying and selling a stock at any given point. What we see ahead is that the price of Db is falling so it made sense for me to buy 500 shares again; however, in the case of Tgt, I thought I would wait for the price to fall till I buy more shares of it again.

#### Week 2

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/14/2011	Db	Sell	58.03	500	29005	450	49880	49880	-220
6/15/2011	Tgt	Sell	47.03	500	23505	0	50000	50000	0
6/17/2011	Db	Buy	57.79	500	28905		20985	49890	

Table 4.2.2 Week 2 Swing Trades

#### 4.2.3 Week 3 trading

In my favor, the strategy of waiting for a few days for the price value of target to drop worked as we can see the price was \$46.49 when I bought another 500 shares. On the other hand, the price of Db increased to 58.73 and we was able to get a profit out of it by selling it a few days later. We sold 500 shares of Db on the 21<sup>st</sup> and gained a profit of \$450, which took me out of my negatives and brought me to a total profit of \$330. As for Target Corp., last week we

had broken even due to the transaction cost, but this week, the price value increased and we was able to get a small profit of \$405 when we sold my 500 shares on the 22<sup>nd</sup>.

### Week 3

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/20/2011	Tgt	Buy	46.49	500	23255		26745	50000	
6/21/2011	Db	Sell	58.73	500	29355	450	50330	50330	330
6/22/2011	Tgt	Sell	47.34	500	23660	405	50405	50405	405
6/23/2011	Tgt	Buy	46.6	500	23310		27095	50405	
6/24/2011	Db	Buy	56.58	500	28350		21980	50330	

Table 4.2.3 Week 3 Swing Trades

### DB one-week view



Figure 4.2.4 DB one week view

### 4.2.4 Week 4 trading

During this week we did not trade a lot with Db as the prices were only getting higher from the last time we saw them. We deviated from the strategy we was using only because we saw more promise in the price value of Db over a few days. Instead of trading every two days we took a risk with this because we saw the growth potential it had and we took a chance. In my favor, we was able to sell Db at a much higher price from when we bought it, at \$59.97. If we

look closely at figure 4.2.5 we can see that when the price value hit the lowest point on June 27<sup>th</sup>, the price rebounded back up and only increased for the next 4 days; at which point we sold and made a profit of \$1675 and a total profit of \$1955. For Target we sold all the 500 shares just because we saw that the prices were fluctuating and that it made most sense to sell, make a small profit and then see if the price would have any positive turn. On the 29<sup>th</sup> we bought 1000 shares of Target. We knew this was a bit risky but because this is swing trading and the technique we was using, even if we were to receive a loss, it would not be so substantial because we would have sold the shares immediately if we saw it going down.

#### Week 4

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/28/2011	Tgt	Sell	46.73	500	23355	45	50450	50450	450
6/29/2011	Tgt	Buy	46.95	1000	46960		3490	50450	
7/1/2011	Db	Sell	59.97	500	29975	1675	51955	51955	1955

Table 4.2.4 Week 4 Swing Trades

#### 4.2.5 Week 5 trading

Since the first of July was the last day of the week we could not trade until the next week starting on the 5<sup>th</sup>. As it happened, the price of Target increased by \$1.01, which would mean if we sold at that point we would receive a total of over \$1000. This was a good investment on increasing my overall profit with Target after this past weekend. After that we decided to buy 250 shares of Db and 500 shares of Target as both prices declined after one day. After looking at the prices for two days, we saw that the prices for Db had decreased so we sold but, the price value for target had increased by several dollar amounts and we decided to sell, which made me a large profit for of \$1210 for the end of the week, and an overall profit of \$3140 with just Target.

## Week 5

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/5/2011	Tgt	Sell	47.96	1000	47960	1010	51450	51450	1450
7/6/2011	Db	Buy	57.96	250	14500		37455	51955	
7/6/2011	Tgt	Buy	47.58	500	23800		27650	51450	
7/8/2011	Db	Sell	57.46	250	14355	-145	51810	51810	1810
7/8/2011	Tgt	Sell	51	500	25490	1210	53140	53140	3140

Table 4.2.5 Week 5 Swing Trades

## DB one month view

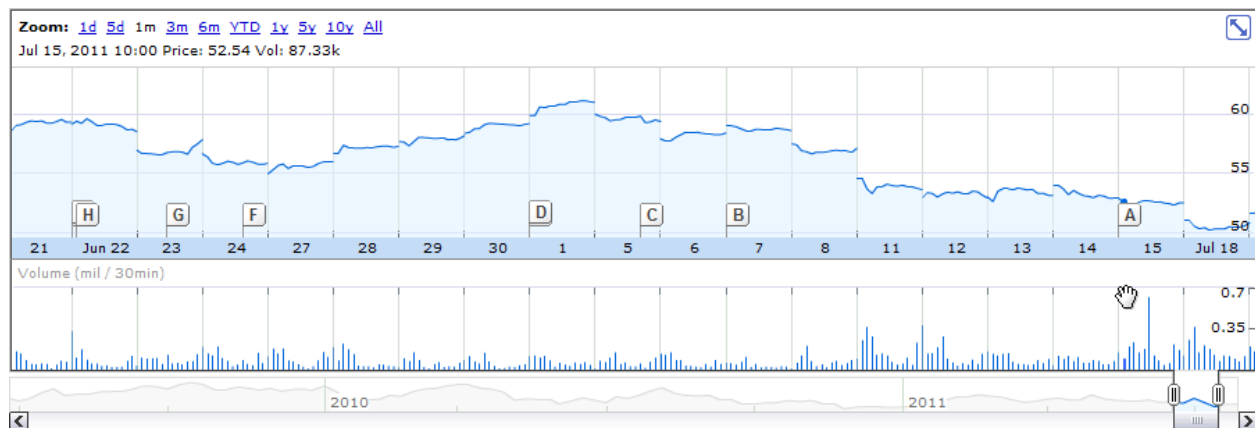


Figure 4.2.5 DB one month view

## 4.2.6 Week 6 trading

In the final week of trading, we can see that based on figure 4.2.5 and figure 4.2.6 that Target had a nice jump in price value but Deutsche Bank started to slowly decline in the price value right after The 7<sup>th</sup> of July. Unfortunately, we was unable to get any more profit from Db by the end of the simulation only earning a total of \$1730. However, Target corp. had a large jump right after the 6<sup>th</sup> of July. we jumped a few dollars in price value and we was able to make a good profit by the end of the simulation for a total of \$3185 in extra earnings. In the last two

week of trading we only bought 250 shares of each, realizing that Db was on its way down and that even if it went down further, we would not lose a lot of money when we would be forced to sell. Target on the other increased but only by \$.18 only making me \$45 in profits for that week.

#### Week 6

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/12/2011	Tgt	Buy	50.75	250	12687.5		40452.5	53140	
7/13/2011	Db	Buy	52.99	250	13257.5		38522.5	51810	
7/15/2011	Db	Sell	52.87	250	13207.5	-50	51730	51730	1730
7/15/2011	Tgt	Sell	50.93	250	12732.5	45	53185	53185	3185

Table 4.2.6 Week 6 Swing Trades

#### TGT one-month view



Figure 4.2.6 Target Corp one month view

### 4.3 Mayank's Results

Just by the description, we can see that swing trading and trend following are very similar in strategies when they are used in the stock market. However, the biggest difference between the two is the number of trades that take place per week and over the entire duration of a given portfolio. As we saw in the 6-week simulation here, both of my companies resulted with a good profit for the \$50000 we invested in each company. Target corp. and Deutsche Bank both had a

oscillating start but once the weeks went on to the third and fourth week of trading, we were really able to make large sums of money in returns for what we had invested.

My final results for Target corp. were \$3185 and for Deutsche Bank it was \$1730. We believe that based on the total amount of money we had allocated for each company, that the returns we received were a fair amount. Clearly, Db was not as profitable as we would have liked it to have been; however, when we analyze the graph meticulously we see that we could have ended up in negative profits if we had not used the strategy we did for swing trading. Conversely, Target corp. had started out slow, fluctuating within a few cents and sometimes a full dollar in price value. In spite of this, Target made a huge jump in the fourth week of trading making its price values all the way into the \$50's. This part was extremely profitable to me and almost doubled the amount of profit I had before it.

One of the key reasons why Target was so profitable for me was because of a technique we were using. As stated before, swing trading is based mostly on technical analysis. As a rule for swing trading, we used to buy and sell every two days. It changed when the prices were fluctuating too much but overall this was a big reason for stopping several losses with either company and was one of the key reasons why I received a larger profit with Target.

#### **4.4 Patrick's Company Selection**

Wal-Mart Stores Inc. (WMT)

The company that was selected for Swing trading was Wal-Mart Stores Inc. (WMT). Swing Trading is when the trader buys or sells shares near the up or down price swing. Similar to that of buying and holding or trend following the big difference is that Swing is a short term trade. In simplest terms the trader will buy shares when prices are in an upswing. The Trader will then sell the shares when the prices are in a downswing. With the Swing Strategy there is no real

trend to follow unless going by speculation. The trader may see a pattern within the prices and may want to follow that pattern, speculating that the share prices will keep to that pattern.

Wal-Mart is a chain of large discount department stores and warehouses. Walmart was founded in 1962 in Rogers Arkansas by Sam Walton. Later changing its official name to Wal-Mart stores Inc. in 1969. In 1970 the company began trading shares on the OTC market then joining the New York Stock Exchange a few years later. In 1991 the company went international opening a store in Mexico City. Walmart serves around 200 million customers per week and is now in 15 different countries. The current revenue of Wal-Mart is 405 billion dollars with a net income of 14 billion dollars.

In figure 4.4.1 we can see the prices of shares from when Wal-Mart first joined the market in 1971 up to today. The price per share around 1972 is as low as 5cents and gradually increases in price till 1995 then starts leveling off. Then during the internet boom around 1996 the price of shares take off again up to the year 2000 where again it levels off. During the time from 2000 till now the price per shares have reached as high as \$70 and as low as \$43.



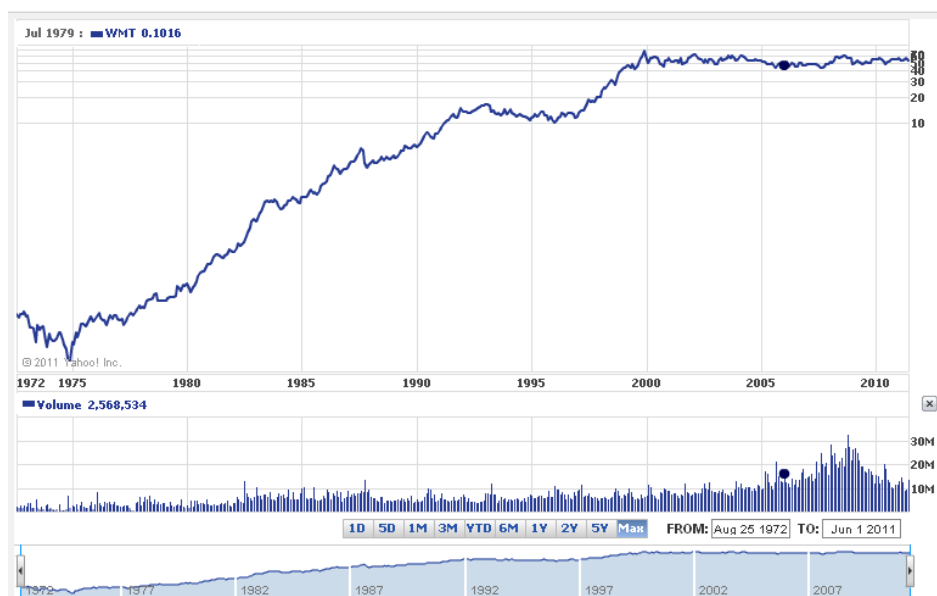


Figure 4.4.1 Wal-Mart stock prices and volume

There was no particular reason for picking Wal-mart Stores Inc. as the second company to follow using the Swing Trading Strategy. Like we have stated previously we wanted the companies to be within different industries with different price levels. Wal-Mart is also one of the most well know companies in the world and one of the biggest.

#### EMC Corporation (EMC)

The second company second company that I selected for Swing Strategy was EMC (EMC). EMC was founded in 1979 by Richard Egan and Roger Marino. There big break came in 1981 when the they introduced the first 64 kilobyte memory board for the prime computer. Then onto data storage for computers. During the mid to late 1990s and even into the early 2000s EMC grew in size in value. The price per stock in the mid 90s was as low at \$10 then when it hits its peak it grew to almost \$90 per share. The company during that time was valued at hundreds of millions and now has grown to be valued in the billions.

There was no main reason for picking this company. We have both know family members to have worked in EMC and thought it would be interested to learn more about it. I also knew that EMC took a huge hit during the early 2000s dropping in price per share from around \$90 to \$20s. I wanted to do a simulation on this company to see if I could see any signs that EMC might get back to that value. If EMC begins to grow the same way it did in the mid-90s I hope to be able to buy shares and use the strategies that I've learned.

#### **4.5 Patrick's Simulation**

The first step to the simulation was to determine how much money we would want to spend for each company. We decided that we would want to spend between \$200k and \$300k per company with money leftover in case we wanted to buy more stocks. The total amount of cash we decided to start off with was \$700k. The second step was to determine how we would use the Swing strategy. The Swing strategy is a short term investment strategy that looks at short term trends in the market. This strategy is very similar to that of Trend, but the difference is long term vs Short term. Swing strategy has you buy/ sell shares right when you see the trend. When the market goes up buy because the investor believes it will continue to go up. When you see the market go down sell because the investor believes that the market will continue to go down.

Our first week of trade for the companies that Pat would be trading with was on the week of June 6<sup>th</sup> – June 10<sup>th</sup>. The first company that we bought shares in was Wal-Mart Stores Inc. (WMT) which took place on June 6<sup>th</sup>, the first day of the simulation. As we can see in Figure 4.5.1 Wal-Mart Week 1 Market Prices the week started off \$53.55 and ended at \$52.72. The Swing strategy had us selling shares on Thursday June 9<sup>th</sup> because this was the first day after buying shares into Wal-mart Stores Inc. that the price per share declined. We can see in Table

4.5.1 Week 1 Swing Simulation that we bought 5500 shares into WMT on June 6<sup>th</sup> at \$53.55 for a total cost of \$294,535 including the trading fee. We then sold 5500 shares of WMT on Thursday June 9<sup>th</sup> at \$52.72 for a total cost of \$294,900. Our total assets to this point was \$700,365 with a profit of \$365 and total profit of \$365.



Figure 4.5.1 Wal-Mart Week 1 Market Prices

The second company that we bought shares in was EMC Corporation (EMC) which took place on Thursday June 9<sup>th</sup>. As we can see in Figure 4.5.2 EMC Week 1 Market Prices the week started off at \$27.32 and ended at \$26.32. The only declines that took place were on Tuesday June 7<sup>th</sup> and Friday June 10<sup>th</sup>. The reason that we didn't sell on the first decline was that we didn't have shares in EMC during this time.

The swing strategy had us sell our shares on the first decline in market right after buying shares which ended up being the day after first buying shares. As we can see in Table 4.5.1 Week 1 Swing Simulation we first bought 9000 shares of EMC on Thursday June 9<sup>th</sup> at \$53.62 for a total cost of \$294,900. We then sold those 9000 shares of EMC the next day at \$26.32 for a total amount of \$236,870. The profit/loss of this transaction was a profit of \$3,670. The total cash for the week was at \$704,035 which was equal to that of total assets. The total profit at the end of week 1 was a positive \$4,035.



Figure 4.5.2 EMC Week 1 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/6/2011							\$700000	\$700000	
6/6/2011	WMT	Buy	\$53.55	5500	\$294535		\$405465	\$700000	
6/9/2011	EMC	Buy	\$26.91	9000	\$233200		\$172265	\$700000	
6/9/2011	WMT	Sell	\$53.62	5500	\$294900	\$365	\$467165	\$700365	\$365
6/10/2011	EMC	Sell	\$26.32	9000	\$236870	\$3670	\$704035	\$704035	\$4035

Table 4.5.1 Week 1 Swing Simulation

The second week of the Swing Simulation took place during the week of June 13<sup>th</sup> – June 17<sup>th</sup>. The total cash at the beginning of the week was \$704,035 and the total profit was at a positive \$4,035. As we can see in Table 4.5.3 Wal-Mart Week 2 Market Prices, Wal-Mart (WMT) started off at \$52.64 and ended at \$52.82. Prices in the market increased and decreased every other day as can be seen below.

We first bought back into Wal-Mart on June 14<sup>th</sup> at \$52.91 which can be seen in the Table 4.5.2 Week 2 Swing Simulation. This was the first time the market increased since selling our shares. We bought back the 5500 shares for a total cost of \$291,015. The shares were then sold on June 15<sup>th</sup> at \$52.32 for a total amount of \$287,750. The profit/loss of those two transactions was a negative \$3,265, decreasing our total assets to \$700,770. This gave us a loss of \$770 to this date. On June 16<sup>th</sup> the market began increasing again to a price of \$52.89. We bought 5500 shares in WMT for a total cost of \$290,905 the following day the market decreased

to \$52.82. We sold all our shares in WMT for a total amount of \$290,500. The profit/loss of these two transactions was \$405, increasing the losses that we had at this time.



Figure 4.5.3 Wal-Mart Week 2 Market Prices

The first transaction of the second week of Swing Simulation for EMC took place on June 14<sup>th</sup>. As we can see in Figure 4.5.4 EMC Week 2 Market Prices the price of EMC at the start of the week began at \$26.26 and ended at \$25.83. The declines in the market that took place during this week for EMC started on Tuesday June 14<sup>th</sup>. This continued to the end of the week. As we can see in Table 4.5.2 Week 2 Swing Simulation we first bought shares back into EMC on June 14<sup>th</sup>.

We bought back the 5500 shares that we sold the previous week for a total cost of \$243,820. The only other transaction that took place during week 2 with EMC was on June 15<sup>th</sup>. This was the first day the market decreased after buying shares in EMC. We sold our 5500 shares for a total amount of \$238,400. The profit/loss of this last transaction of the week was a negative \$5,420. With no money in the market at this time our total cash and total assets were the same equally \$695,350. This gave us a negative total profit up to that day of \$4,650 and a negative total profit of \$5055 for the whole simulation up to the end of week 2

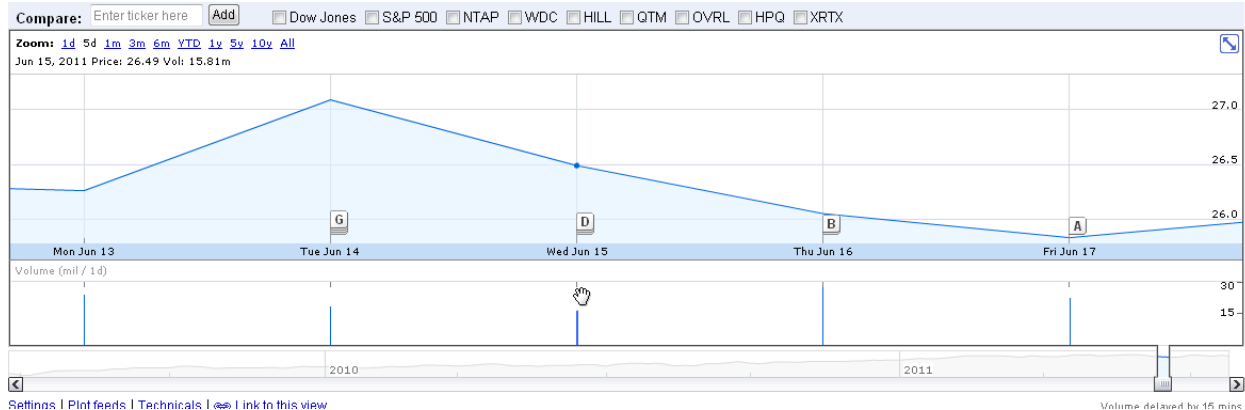


Figure 4.5.4 EMC Week 1 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/13/2011							\$704035	\$704035	\$4035
6/14/2011	WMT	Buy	\$52.91	5500	\$291015		\$413020	\$704035	\$4035
6/14/2011	EMC	Buy	\$27.09	9000	\$243820		\$169200	\$704035	\$4035
6/15/2011	WMT	Sell	\$52.32	5500	\$287750	\$3265	\$456950	\$700770	\$770
6/15/2011	EMC	Sell	\$26.49	9000	\$238400	\$5420	\$695350	\$695350	\$4650
6/16/2011	WMT	Buy	\$52.89	5500	\$290905		\$404445	\$695350	\$4650
6/17/2011	WMT	Sell	\$52.82	5500	\$290500	\$405	\$694945	\$694945	\$5055

Table 4.5.2 Week 2 Swing Simulation

The third week of the Swing Simulation took place during the week of June 20<sup>th</sup> - June 24<sup>th</sup>. At the beginning of this week we had a total cash of \$692,945 which gave us a loss in total profit of \$5,055. As we can see in Figure 4.5.5 Wal-Mart Week 3 Market Prices, the market price of Wal-Mart at the beginning of the week was \$53.04 and ended at \$52.42. The graph shows that the market increased only at the beginning of the week on June 20<sup>th</sup> and June 21<sup>st</sup>, but declined the rest of week 3.

We bought 5500 shares of Wal-Mart on June 20<sup>th</sup> at \$53.04 for a total cost of \$291,730 which can be seen in Table 4.5.3 Week 3 Swing Simulation. The market increased the following day then on June 22<sup>nd</sup> the market decreased resulting in us selling the shares that we had. We

sold the 5500 shares at \$53.01 for a total amount of \$291,454. The profit/loss of this between the last two Wal-Mart transactions resulted in a loss of \$185 giving us a total cash and total asset amount of \$698,430. The total profit at the end of June 22<sup>nd</sup> was a loss of \$1,570. The last transaction that took place with WMT during this week was on June 24<sup>th</sup>. We bought 5500 shares back into Wal-Mart at \$52.42 for a total cost of \$288,320.



Figure 4.5.5 Wal-Mart Week 3 Market Prices

The first transaction during week 3 of Swing Simulation for EMC was on June 20<sup>th</sup>. As we can see in Figure 4.5.6 EMC Week 3 Market Prices the market price of EMC at the beginning of this week was \$26.03 and the weeks ending price was \$26.64. This week for EMC wasn't really a stable one, the market was fluctuating in price for most of the week.

The first transaction that took place with EMC during week 3 was on June 20<sup>th</sup> as can be seen in Table 4.5.3 Week 3 Swing Simulation. We bought 9000 shares of EMC at \$26.03 for a total cost of \$234,280. The next day the market price continued to increase not allowing us to buy or sell more shares. One June 22<sup>nd</sup> the market decreased allowing us to sell our 9000 shares at \$26.44 for a total amount of \$237,950. The profit between the last two EMC transactions was

\$3,670 bringing the total profit at this time down from \$5,055 to \$1,385. By the end of this day, June 22<sup>nd</sup>, the total profit was at a loss of \$1,570. The third transaction this week involving EMC took place on June 23<sup>rd</sup> where we bought 9000 shares at \$26.59 for a total cost of \$239,320. The final transaction of week 3 was on June 24<sup>th</sup> where we sold all the shares that we held in EMC at this time. We sold our 9000 shares at \$25.64 for a total amount of \$230,750. The profit/loss between these last two transactions was the biggest that we had so far for the Swing Simulation. We lost \$8,570 on this day which brought our total cash and total assets to \$689,860. The total profit at the end of this week was a loss of \$10,140.



Figure 4.5.6 EMC Week 3 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/20/2011							\$694945	\$694945	\$5055
6/20/2011	EMC	Buy	\$26.03	9000	\$234280		\$460665	\$694945	\$5055
6/20/2011	WMT	Buy	\$53.04	5500	\$291730		\$168935	\$694945	\$5055
6/22/2011	EMC	Sell	\$26.44	9000	\$237950	\$3670	\$406885	\$698615	\$1385
6/22/2011	WMT	Sell	\$53.01	5500	\$291545	\$185	\$698430	\$698430	\$1570
6/23/2011	EMC	Buy	\$26.59	9000	\$239320		\$459110	\$698430	\$1570
6/24/2011	EMC	Sell	\$25.64	9000	\$230750	\$8570	\$689860	\$689860	\$10140
6/24/2011	WMT	Buy	\$52.42	5500	\$288320		\$401540	\$689860	\$10140

Table 4.5.3 Week 3 Swing Simulation



The fourth week of the Swing Simulation took place during the week of June 27<sup>th</sup>- July 1st. At the beginning of the fourth week we had total assets of \$689,860 which gave us a total loss in profit of \$10,140. As we can see in Table 4.5.7 Wal-Mart Week 4 Market Prices, the market price at the beginning of the week was at \$52.88 and at the end of the week was at \$53.51. The market was in an upward trend for the whole week, increasing everyday of the week.

Our first of two Wal-Mart transactions took place on June 27<sup>th</sup>. We sold the 5500 shares that we bought the previous week at \$52.38 for a total amount of \$288,080 as can be seen in Table 4.5.4 Week 4 Swing Simulation. The profit/loss between these two transactions was a loss of \$240, giving us a total cash amount of \$451,120 and total assets of \$689,620. The total profit to this date increased to a loss of \$10,380.



Table 4.5.7 Wal-Mart Week 4 Market Prices

The fourth week for EMC using the Swing Strategy was a very slow week compare to other weeks. As we can see in Table 4.8 the market price at the beginning of the week was \$26.5 and at the end of the week was \$27.83. The market price increased gradually everyday throughout the week. The first and only transaction that took place during this week with EMC was on June 27<sup>th</sup>. In Table 4.5.4 Week 4 Swing Simulation we can see that we bought 9000

shares at \$52.38 for a total cost of \$238,500. This decreased the total cash to \$163,040 and kept the total assets and total profits the same.



Figure 4.5.8 EMC Week 4 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/27/2011							\$401540	\$689860	\$10140
6/27/2011	EMC	Buy	\$26.5	9000	\$238500		\$163040	\$689860	\$10140
6/27/2011	WMT	Sell	\$52.38	5500	\$288080	\$240	\$451120	\$689620	\$10380
6/28/2011	WMT	Buy	\$52.53	5500	\$288925		\$162195	\$689620	\$10380

Table 4.4.4 Week 4 Swing Simulation

The fifth week of the Swing Simulation took place during the week of July 4<sup>th</sup>- July 8<sup>th</sup>. At the beginning of the fifth week we were at \$162,195 for total cash. We were also at \$689,620 for total assets giving us a loss in profit of \$10,380. As we can see in Figure 4.5.9 Wal-Mart Week 5 Market Prices the beginning market price for Wal-Mart was \$53.51 and by the end of the week it finished at \$54.08. The market fluctuated for most of the week.

The first transaction for Wal-Mart during the fifth week took place on July 5<sup>th</sup> as can be seen in Table 4.5.5 Week 5 Swing Simulation. The market began declining from the previous market price the week before so we sold 5500 shares at \$53.39 for a total amount of \$293,635. The profit/loss between the last transaction from the previous week and this transaction was a profit of \$4,710. This increased the total assets to \$694,330, giving us an increase in total profit

from a loss of \$10,380 to a loss of \$5,670. The following day on July 6<sup>th</sup> the market increased. We bought back the shares we sold at \$53.73 for a total cost of \$295,525. The last transaction that we made during this fifth week involving Wal-Mart was on July 7<sup>th</sup> when we sold our shares at \$54.08 for a total amount of \$297,430. The profit between this transaction and the transaction we made on July 6<sup>th</sup> came out to be a profit of \$1,905. This transaction and transactions involving EMC brought the total assets to \$708,285, giving us a total profit of \$8,285.



Figure 4.5.9 Wal-Mart Week 5 Market Prices

The fifth week of Swing Simulation for EMC was just like that of Wal-Mart. The beginning of the week EMC was at \$27.83 and by the end of the week it finished at \$27.87. As can be seen in Figure 4.5.10 EMC Week 5 Market Prices, the market fluctuated every other day during this week. The first transaction took place on July 6<sup>th</sup>. We can see in Table 4.5.5 Week 5 Swing Simulation that we sold the 9000 shares that we were holding in EMC at that time at the price \$28.84 for a total amount of \$259,560. The profit/loss between this transaction we made and the last EMC transaction from the previous week was a positive \$12,050. This gave us a total assets of \$706,380 and for the first time since week one a positive total profit of \$6,380. The next day the market began to increase so we bought back the 9000 shares at \$27.89 for a

total cost of \$251,020. The next day on Friday July 8<sup>th</sup> the market again declined. We sold all the shares we held at that time for \$27.87 for a total amount of \$ \$250,820. The profit/loss between this transaction and the one that was made on July 7<sup>th</sup> was a negative \$200. The total cash and total assets at the end of week 5 was \$708,085. The total profit declined \$200 but stayed at a positive \$ 8085.



Figure 4.5.10 EMC Week 5 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/4/2011							\$162195	\$689620	\$10380
7/5/2011	WMT	Sell	\$53.39	5500	\$293635	\$4710	\$455830	\$694330	\$5670
7/6/2011	WMT	Buy	\$53.73	5500	\$295525		\$160305	\$694330	\$5670
7/6/2011	EMC	Sell	\$27.84	9000	\$250550	\$12050	\$410855	\$706380	\$6380
7/7/2011	EMC	Buy	\$27.89	9000	\$251020		\$159835	\$706383	\$6380
7/8/2011	WMT	Sell	\$54.08	5500	\$297430	\$1905	\$457265	\$708285	\$8285
7/8/2011	EMC	Sell	\$27.87	9000	\$250820	\$200	\$708085	\$708085	\$8085

Table 4.5.5 Week 5 Swing Simulation

The sixth week and last week of the Swing Simulation took place during the week of June 11<sup>th</sup>- July 15<sup>th</sup>. At the beginning of the sixth week we had total assets of \$708,085 which gave us a total loss in profit of \$8,085. As we can see in Figure 4.5.11 Wal-Mart Week 6 Market Prices the beginning market price for Wal-Mart was \$53.86 and by the end of the week it finished at \$53.63. The market fluctuated for most of the week.

The first transaction for Wal-Mart that took place during the final week of Swing Simulation was on July 12<sup>th</sup>. We bought 5500 shares of Wal-Mart at \$53.93 for a total cost of \$296,625. The next day the market decreased, we sold the shares we held at that time for \$53.5 for a total amount of \$294,240. The profit/loss between the first and second transactions was \$2,385. To this date we increased our total cash, total assets, and total profit as can be seen in Table 4.5.6 Week 6 Swing Simulation. On July 14<sup>th</sup> the market increased for the last time during this simulation from the previous price to \$53.61. We bought 5500 shares for a total cost of \$284,865. Finally on the last day of the Swing Simulation we sold all our shares at \$53.63 for a total amount of \$294,955. These last two transactions that we made gave us a profit of \$90, increasing our total profit from the previous days.



Figure 4.5.11 Wal-Mart Week 6 Market Prices

The sixth week of Swing Simulation for EMC didn't have as much buying and selling as that of Wal-Mart. . The beginning of the week EMC was at \$27.21 and by the end of the week it finished at \$26.81. As can be seen in Figure 4.5.12 EMC Week 6 Market Prices, the market fluctuated for most of the week. The first transaction that took place during this last week was on July 13<sup>th</sup> at \$27 for a total cost of \$243,030 as can be seen in Table 4.5.6 Week 6 Swing Simulation. The final trade for EMC that we made for this simulation was on July 14<sup>th</sup>. We sold

all our shares in EMC at \$26.82 for a total amount of \$241,370. The profit between the last transactions that we made for EMC was a loss of \$1,640. This brought our total cash and total assets down to \$704,060. The total profit decreased from \$5,700 to \$4,060. At the end of this week the total profit was at a positive \$4,150.



Figure 4.5.12 EMC Week 6 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/11/2011							\$708085	\$708085	\$8085
7/12/2011	WMT	Buy	\$53.93	5500	\$296625		\$411460	\$708085	\$8085
7/13/2011	WMT	Sell	\$53.5	5500	\$294240	\$2385	\$705700	\$705700	\$5700
7/13/2011	EMC	Buy	\$27	9000	\$243010		\$462690	\$705700	\$5700
7/14/2011	EMC	Sell	\$26.82	9000	\$241370	\$1640	\$704060	\$704060	\$4060
7/14/2011	WMT	Buy	\$53.61	5500	\$294865		\$409195	\$704060	\$4060
7/15/2011	WMT	Sell	\$53.63	5500	\$294955	\$90	\$704150	\$704150	\$4150

Table 4.4.6 Week 6 Swing Simulation

## 4.6 Patrick's Results

At the beginning of the Swing Simulation we started off with buying 5500 shares of Wal-Mart at \$53.55 for a total cost of \$294,525. Throughout this whole simulation, the number of times we bought or sold shares came out to be 14 times for a total of \$140 in commissions. By the end of the simulation we sold our shares at \$53.63 for \$294,955. With all the trades that we made the total profit for Wal-Mart came out to be \$590. We calculated that if we kept the shares

that we bought at \$53.55 and didn't sell those shares till the end of the simulation at \$53.63 we would have had a total profit of \$420. In our opinion this strategy did work for Wal-Mart even if it was only a small amount more affective.

At the beginning of the Swing Simulation we started off with buying 900 shares of EMC at \$26.91 for a total cost of \$242,190. Throughout this whole simulation, the number of times we bought or sold shares came out to be 12 times for a total of \$120 in commissions. By the end of the simulation we sold our shares at \$26.82 for \$241,370. With all the trades that we made the total profit for EMC only came out to be \$3,560. We calculated that if we kept the shares that we bought at \$26.91 and didn't sell those shares till the end of the simulation at \$26.82 we would have had a total profit of \$-820. In our opinion this strategy did work for EMC because of such a big difference in total amount made between Swing and Buying and Holding.

Over all we started off with a total cash amount of \$700,000 and total assets amount of \$700,000. By the end of the simulation we ended with \$704,150 making the total profit \$4,150. The percent that was made off the \$536,715 that we bought at the beginning was .7% return on investment.

## **Chapter 5: News Following Trades**

News trading is a very popular strategy for investing in the market. It is a type of strategy that can be extremely beneficial in terms of gaining a large profit in a short period of time. However, there are some risks. News trading is a strategy that uses the current events to make a profitable trade in the market. The problem lies in that very strategy, meaning that there would be several people to hear of the latest movement in the market much quicker than others. In order to have the best results for news trading, it is important to have access to real time news. The most important part of news trading is to realize when it is the best time to buy or sell because, a profit or loss can occur within minutes of a trade. For example, if an investor realizes that the stock value of a company is increasing and then wants to buy, he can quickly place his order. Since there are several thousands of people paying attention to the fluctuations in the market, he would not be the first to do so, and could have bought the stock when it reached the top value for that day just within minutes of him finding out. The reason why the value of the stock is decreasing is because people are selling to claim the profits they received within minutes.

This type of strategy seems to risky for a single investor to keep trying, basically setting yourself up for losses. There are many large firms that have access to news that has already been released but the news also costs more to the general public. This is the very reason why people would say that news trading is just getting losses; however, there are areas where a profit can be made but an investor just has to know when that point is. The most certain way to make gains is to make sure that you understand what moves the market. Understanding this portion can be very advantageous in gaining profits because an investor can come up with trading schemes and



strategies of when to invest even before the majority of people start to make a move in the same direction.

A counter strategy can also be used within news trading. Just as the information coming from the news can be used to know when to buy shares as they are increasing; conversely, it can also be used to understand when it is the best time to sell. This does one should sell just before the value of the stock starts to decrease, or when it is falling but actually when it is rising. The reason for this selling is that an investor can get profits by selling short because he knows that the price value is moving up. It is clear that he may not receive the most profits, but he still did get more than when the price would be going down.

## **5.1 Mayank's Company Selection**

Apple has had huge success in the past decade introducing its products to several countries around the world and making its products user friendly to all ages. At first, its products were not so prominent and were overshadowed by the combined effort of Microsoft and Dell. Apple had just been hanging in there without making a huge impact in the market except for a few strict followers. However, after the introduction of the market-shifting product, the iPod, Apple has never seen the numbers it used to inch up less than a decade ago. Because of such large revenues for this popular item, it has invested a large sum of money into its R&D department to bring out a new and completely unique generation of computer that rivals Dell, making its own presence in the most affluent countries around the world.

McDonalds (mcd) is undoubtedly the largest fast food serving franchises in the world. This corporation started in 1940 in the United States and quickly grew popular within the next 20 years and expanded it nationally. From then, McDonalds has been a huge presence in the

American way of life with its logos, slogans and mascots effecting children and adults. Over time, McDonalds made its way overseas to several countries in Europe and Asia, spreading the American culture along with it. As of now, there are approximately 400,000 employees with over 31,000 locations worldwide. Because of its heavy prominence in the international market, it has made it a frequent topic of public debate of obesity, corporate ethics, and consumer responsibility. McDonalds is also part of the Dow Jones, meaning it is one of the 30 largest American companies as of now. It has a large presence in the stock market and is publicly traded in the New York Stock Exchange.

## **5.2 Mayank's Simulation**

This simulation for Apple has been unpredictable to describe it in one word. Following the its past history and the news, we thought that it would have made most sense investing in Apple considering it is one of the fastest growing companies in the market. However, through research and detailed excerpts on this topic, we was able to realize that a company reaches its plateau at some points in the market.

As we can see here, Apple has gone down in its value. While following the news we thought that Apple would be doing better so we decided not to sell any of the shares that we held. What we thought would increase the value of apple would be the new application they are launching for their newer operating systems, the iCloud. From the general consensus, the iCloud was thought to be a completely new type of technology which apple had brought forth into the market. Due to this advancement, Apple would have done better due to a general interest in apple at this time. As we can tell however, this was not the case as Apple's value had gone down.

### 5.2.1 – week 1 trading

During the first week of trading, we thought we would leave the market alone and not sell any of the Apple shares that we had. During that period, Apple had announced their new launch of the iCloud. From their keynote speaker at their announcement, this product was, based on the public's perception, glorified more than what it cropped up to be. Regardless, because of their continuous success in these past years with new products, we rationalized that it would make most sense to keep the shares and see how the market does with their new release in technology. However, as the iCloud received less than par ratings, the value of the shares went down.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/6/11	Aapl	Buy	345.7	100	34580		15420	50000	
6/6/11	Mcd	Buy	80.6	400	32250		17750	50000	
6/9/11	Mcd	Sell	81.15	400	32450	416	50416	50416	416

Table 5.2.1 week 1



Figure 5.2.1 MCD one month view

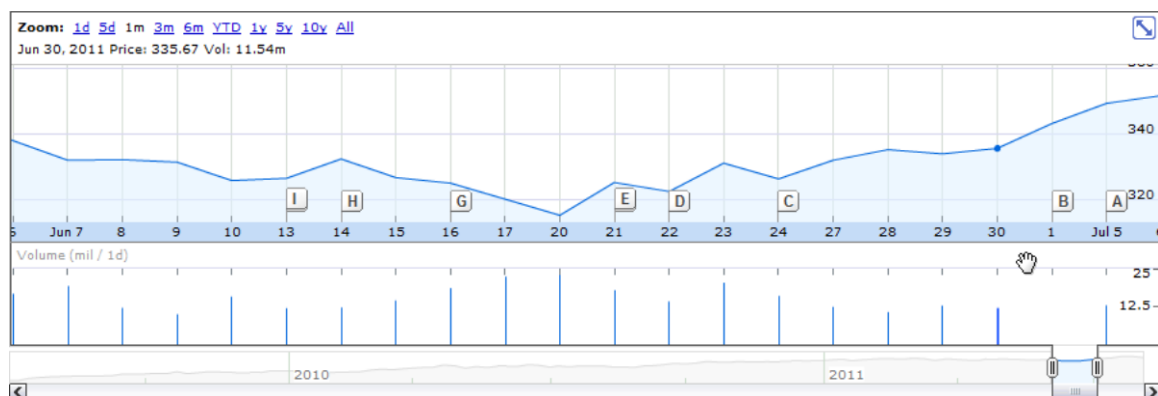


Figure 5.2.2 AAPL month view

### 5.2.2 week 2 trading

The second and third week showed improvements of Apple, although it was fluctuating. Based on that, we did not decided to keep my shares without trading because we thought that we would make most sense to wait and see if the price value would increase. Based on the News Trading strategy, we was only able to get normal news updates, through the newspaper, and television, so a lot of information was a little old and we was unable to get it all as quick in comparison to other investors.

Regardless, In the second week, the price value of both McDonalds and Apple were going down, so there was not much to be done. Based on the headlines given on the websites that we was using, we was told that the price for the week was going down or fluctuating within a few cents within the given price value. As we can see in table 5.2.2 I bought and sold apple stocks in the beginning of the week but then sold at the end of the week to make a small profit.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/13/11	Aapl	Sell	327.2	100	32710	-1870	48130	48130	-1870
6/13/11	Mcd	Buy	80.73	400	32302		18134	50436	
6/16/11	Aapl	Buy	326.9	100	32700		15430	48130	
6/17/11	Aapl	Sell	328.99	100	32889	209	48319	48319	-1681

Table 5.2.2 week 1 news trading

### 5.2.3 – week 3 trading

The third week was a very positive week as both price values for the companies went up. The total profit for Apple was still down but we were gaining the profit this week with a total of \$760. This brought the total profits to -\$921 transaction fees. For McDonalds, we heard that the prices were slowly going up and we decided to sell. I made a good profit of \$616 when we sold all my shares on the 20<sup>th</sup> of June.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/20/11	Aapl	Buy	317.36	100	31746		16573	48319	
6/20/11	Mcd	Sell	82.32	400	32918	616	51052	51052	1052
6/22/11	Aapl	Sell	325.16	100	32506	760	49079	49079	-921
6/23/11	Aapl	Buy	318.94	100	31904		17175	49079	

Table 5.2.3 week 3 news trading



Figure 5.2.3 apple two week view

### 5.2.4 – week 4 news trading

For this week of trading, we saw a big jump in a lot of the stocks that were listed. The headlines said that NASDAQ an overall profit for all the companies that were listed right at the beginning of the week. As the news stated, the prices and the profits we received reflected that. Another plus was that McDonalds had huge price increase of almost \$3 within a matter of 4

days. Because of that we can clearly see the effect it had on the total profit McDonalds. We made a total profit of \$1040 for the week bringing my overall total profit to \$2092 after the transaction fees. As for Apple, this week was a turning point in terms of the total profit. Looking at table 5.2.4 the total profit for Apple came out to be \$530 after all fees. The reason we sold on the 28<sup>th</sup> was because we did not want the price of apple to go down and risk not having a positive amount of money in the total profit.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/27/11	Mcd	Buy	81.51	400	32614		18438	51052	
6/28/11	Aapl	Sell	333.65	100	33355	1451	50530	50530	530
6/30/11	Aapl	Buy	334.7	100	33480		17050	50530	
7/1/11	Mcd	Sell	84.16	400	33654	1040	52092	52092	2092

Table 5.2.4 week 4 news trading



Figure 5.2.4 McDonalds one week view

### 5.2.5 - week 5 news trading

In this week, Apple was going through a very large increase in prices. We thought that if it was increasing every day, we would wait to see it fall in prices at any point and then sell. That however did not really happen as we was looking and the prices for Apple were just increasing

for the entire week. Therefore, we did not sell any of the Apple shares we had in the 5<sup>th</sup> week of trading. McDonalds shares prices were also increasing but we had not bought any shares before so we thought that it would be logical to buy shares now and wait for the prices to change. Unfortunately, the prices of McDonalds were not increasing at a very high rate and were decreasing at some points during the day. Regardless, we decided to wait till the next week to see if we could make any final profits with McDonalds.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/5/11	Mcd	Buy	85.41	400	34174		17918	52092	

Table 5.2.5 week5 news trading

#### 5.2.6 – week 6 news trading

In the final week of trading, McDonalds did not have much of a rise in prices, in fact, it decreased by several cents from the previous week. We decided to sell at this point for McDonalds because we did not want to incur any more losses that we could not gain due to this being the final week for simulations. We received a loss of -\$56 on the first day of week six. However, on the 12<sup>th</sup> we bought 400 shares again because the prices at that point were going up for McDonalds. We waited for the last day to see if we could gain just a little bit of the profit. For Apple, we did not sell in the beginning of the week as the prices just kept on increasing and showed a very good positive growth on the news. We decided to sell at the very last moment and received a large profit of \$2527 for the final week, which more than doubled my total profits for Apple. McDonalds also had a pretty good increase but only \$272 for the final day which increased my total profit to just over \$2288.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/11/11	Mcd	Sell	85.32	400	34118	-56	52036	52036	
7/12/11	Mcd	Buy	85.2	400	34090		17946	52036	
7/15/11	Aapl	Sell	361.17	100	36107	2627	53157	53157	3157
7/15/11	Mcd	Sell	85.88	400	34342	272	52288	52288	2288

Table 5.2.6 week 6 news trading



Figure 5.2.5 McDonalds one month view 1

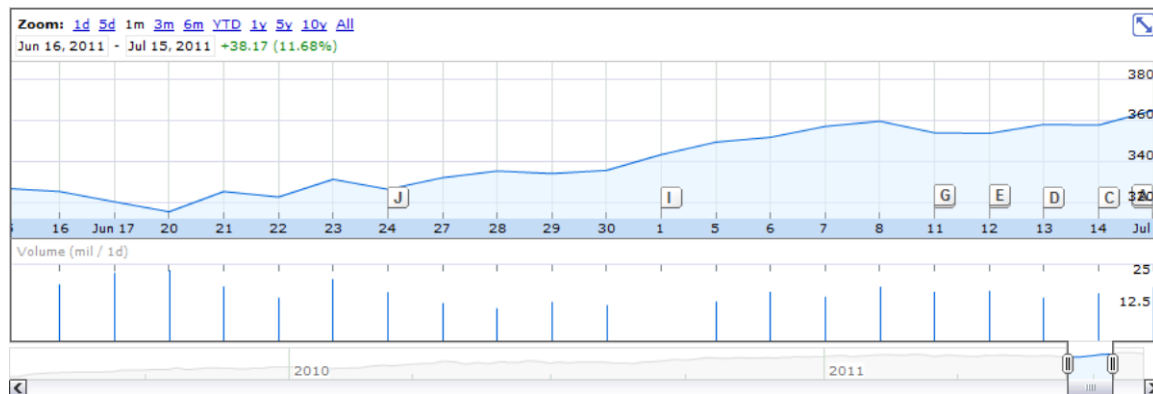


Figure 5.2.6 McDonalds one month view 2

### 5.3 Mayank's Results

. We found that news trading was a very different technique than trend of swing. It required a different strategy and focus on the price values then most of the other strategies we have focused on in this simulation. Fortunately for us, the share value of both McDonalds and



Apple started to increase at a higher rate near the end of the simulation. As we can see from figure 5.2.6, it shows the monthly view of the share value of Apple and the increase it had by over 30 point from the end of June. McDonalds also had an increase but the change was not as drastic as it only changed by a few dollars starting in July. It did give a good profit because we had invested 4 times as many shares in McDonalds than I had in Apple.

Overall, we found that news trading was an easy concept to understand but amateurish in terms of get the most out of the market. Comparatively, news trading did not require as much work as the other two types of trading we have simulated, but did give back a positive return in the end. However, we would consider that fortunate. Conversely, if we looked at say two different companies and found that the overall price just kept on decreasing, without any reason we would sell just by watching the price go down and would not know of it increasing with rule that we may have followed for the other simulations.

## **5.4 Patrick's Company Selection**

The last selection that we made for News following was General Electric Company (GE). The News Following strategy is when you use current events of a company to determine whether you buy or sell shares of that company. This is can from news on how the company is doing during a certain time to what new technology a company is coming out with or even news on whether the stock in the company will grow or decrease. Any type of news the will benefit the investor can be used in the news following strategy. This strategy is very risky because it is mostly based on speculation. For example if a company like General Electric comes out with a new product that you think will improve the company resulting in increase in share price you would then decide to buy shares in that company in belief that share prices are going to increase.

The investor is speculating that the company shares will increase. It may be that the product doesn't improve the company and shares will decrease or even that after buying the shares you won't see immediate improvements in stock price.

### General Electric Company

General Electric Company is currently one of the largest companies in the world right now. General Electric was first formed by Thomas Edison when he took his company Edison General Electric and merged with Thomson-Houston Electric Company around 1892. GE's products range from appliances, to consumer electronics to aviation. In 1892 GE was one of twelve companies listed under Dow Jones Industrial Average and remains to this day. In 2010 GE was ranked the second largest company in the world.

In Figure 5.4.1 we can see the prices per share of General Electric Company since 1962. In 1962 we can see that GE was as low as 60 cents per share back then. From 1975 we can see that GE gradually increases up to 2000. Again like most companies that we have talked about General Electric hit its peak around the time of the "internet boom". We can also see that GE took a huge dip in price around the 2008 stock market crash. Comparing the dip in price to the volume of shares we can see that right after the stock hits its low in price the volume of shares increases. This reason is probably due to those speculating that GE wouldn't decrease much more and would gradually increase in price which we can see has happened since then.



Figure 5.4.1 GE chart

The reasons for choosing General Electric Company as a company to follow using the News Strategy is because GE is one of the biggest companies in the world at this time. I thought that a huge company like GE would have lots of news regarding stock information or even with new technology that may affect the stock price. I also knew how well GE was doing during the early 2000s and new that GE took a huge dip in price in the mid-2000s as well. I wanted to see if GE would gradually get back to that stock price. As we have seen in the graph above it has taken GE a long time to grow to a share price of \$20. The main reason that I choose General Electric is that I have shares in GE at this time. What better way to follow a company an investor has shares in then actually using investing strategies to increase profit. I am hoping that maybe if GE does well in my simulation, I can use the News Following to buy and sell shares of GE in real life.

### Exxon Mobil Corporation

Exxon was founded in 1870 by John D. Rockefeller and Henry Flagler. Exxon expanded in the early years adding Anglo-American oil Company and in 1972 changing its name to Exxon Corp. Mobil began in 1911 when the standard oil company of new York was founded, changing

its name to Mobil in 1920. Mobil like Exxon merged throughout the years eventually merging with one another in 1998. Exxon Mobil is a multinational oil and gas corporation. In 1998 Exxon and Mobile signed a \$78 billion agreement to merge. Exxon Mobil was then formed in 1999. In 2005 Exxon Mobil passed General Electric as the world largest corporation.

The reason for choosing Exxon Mobil as a company to use for News Strategy is very much the same as GE. The main reason is that Exxon Mobil is one of the biggest companies in the world. We figured that with a company this big, we would easily find news that would help us with this simulation. The other reason was that it's an oil company. Oil is one of the most bought resources in the world. Every day there is news on how the oil prices are doing. It wouldn't be hard to use this company with the news strategy.

## **5.5 Patrick's Simulation**

The first step to the simulation was to determine how much money we would want to spend for each company. We decided that we would want to spend between \$200k and \$300k per company with money leftover in case we wanted to buy more stocks. The total amount of cash we decided to start off with was \$1M. The second step was to determine how we would use the News strategy. The News strategy is a strategy that looks at the news to determine whether they will buy or sell shares in a company. This can be from hearing about news products or technology that the company is coming out with. This can be from hearing about how the company will do in the market. Negative news that is heard can also determine what you do with shares.

Our first week of trade for the companies that Pat would be trading with was on the week of June 6<sup>th</sup> – June 10<sup>th</sup>. The first company that we bought shares in was General Electric Co. (GE) which took place on June 6<sup>th</sup>. As we can see in Figure 5.5.1 GE Week 1 Market prices the

week started off \$19.09 and ended at \$18.32. With News strategy, the investor usually buys/sells shares because of what they heard in the news.

With our first transaction that we made this was not the case. Since we were starting on June 6<sup>th</sup> we bought shares on this day without using the news. The second transaction was made on June 10<sup>th</sup>. We bought 2000 more shares of GE for a total cost of \$36,630. Both transactions can be seen in Table 5.5.1 Week 1 News Simulation. The reason why we bought shares on this day was because of an article that talked about GE dividends being back on track. A sample of the article can be seen on the next page (Investment Underground 2011). This sample was the big reason why we bought more shares.

*Over the last few weeks the shares have corrected 14% from a recent high of \$21.50 down to \$18.30. GE, in my opinion, will not only increase the dividend at a rapid rate, but will restore it to its former level as soon as possible. This represents a double opportunity owning a company with a good current yield growing at a fast pace. For one not long or one adding to a current position this is a good buying opportunity.*



Figure 5.5.1 GE Week 1 Market Prices

The second company that we bought shares in was Exxon Mobil Corporation (XOM) which took place on Thursday June 9<sup>th</sup>. As we can see in Figure 5.5.2 Exxon Mobil Week 1

Market Prices the week started off at \$80.3 and ended at \$79.18. The first transaction that we made was on June 9<sup>th</sup>. Since this was the first transition that we made there was no news that we followed that determined whether we were supposed to buy shares in XOM. We bought 3500 shares at \$81.18 for a total cost of \$284,140.

The second transaction that we made for Exxon Mobile and the first that we made using the News Strategy was on June 10<sup>th</sup>. As we can see in Table 5.5.1 Week 1 News Simulation we bought 100 shares at \$79.18 for a total cost of \$7,928. The news article that we read was about Exxon Mobil buying a company for \$1.7 billion. A sample of the article can be seen on the next page (The associated Press 2011). We thought this showed Exxon Mobil was growing and the value of Exxon Mobile was growing. All this would be good for the growth and increase in market price. By the end of the first week of News Simulation we had total assets of \$981,260 which was a decrease from the \$1million that we started off with.

*Pittsburgh media reported Thursday that the company is paying nearly \$1.7 billion for Warrendale-based Philips Resources and TWP Inc. The new deal adds about 317,000 acres to the Texas-based company's Marcellus Shale landholdings. In December 2009, it paid \$41 billion for Houston-based XTO Energy for natural gas holdings that lie under much of western Pennsylvania. Philips Resources and TWP Inc. have around 200 employees and have participated in the drilling of more than 50 Marcellus wells.*

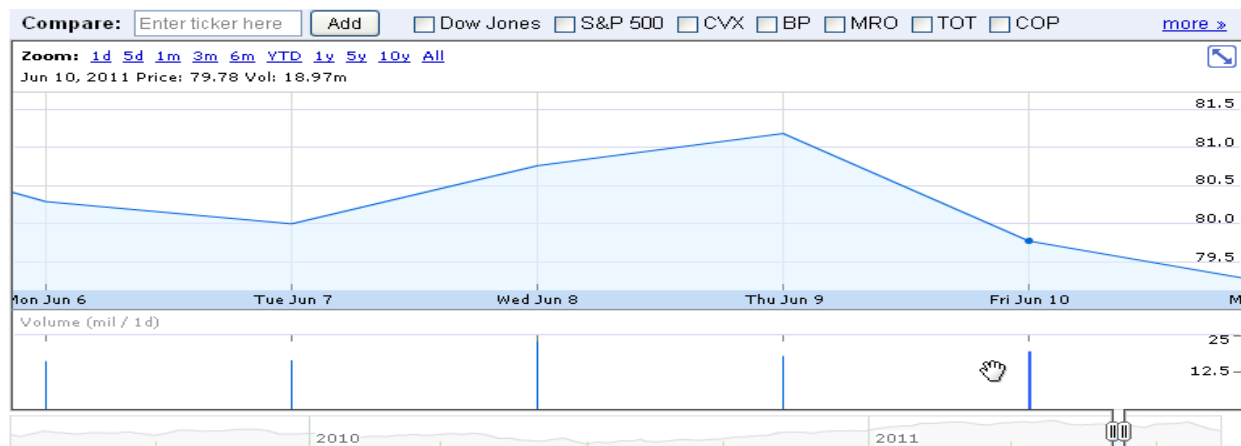


Figure 5.5.2 Exxon Mobil Week 1 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/6/2011							\$1000000		
6/9/2011	GE	buy	\$19.09	15000	\$286360		\$713640	\$1000000	
6/9/2011	XOM	buy	\$81.18	3500	\$284140		\$429500	\$1000000	
6/10/2011	GE	buy	\$18.31	2000	\$36630		\$392870	\$988270	
6/10/2011	XOM	buy	\$79.18	100	\$7928		\$384942	\$981260	

Table 5.5.1 **Week 1** News Simulation

Our second week of trade for the companies that Pat would be trading with was on the week of June 13<sup>th</sup> – June 17<sup>th</sup>. At the beginning of this week we had a total cash of \$981,260 and because we haven't sold any shares of General Electric up to this point there has been no total profit. As we can see in Figure 5.5.3 GE Week 2 Market Prices, the market price of General Electric at the beginning of the week was \$18.58 and by the end of the week was \$18.49.

The third overall transaction of General Electric and only one that took place during the second week occurred on June 14<sup>th</sup>. As we can see in Table 5.5.2 Week 2 News Simulation we bought an additional 1000 shares of GE. We bought the shares for \$18.6 for a total cost of \$18,610. The news article that resulted in me buying shares was an article about GE and another company joining to create a new solar power plant. A sample of the article can be seen in the paragraph below (Business Wire, 2011). The reason why I thought this article could showed the

continued growth in General Electric. The creation of this plant creates more jobs and this shows that the company is doing well. To this point of the simulation we haven't had a profit as of yet. After buying these 1000 shares our total assets was \$1,004,790. If we decided to sell we would have a total profit of \$4,790.

*GE (NYSE: GE) and Gehrlicher Solar today announced that the two companies have begun construction on a solar power plant in Aschheim, Germany; the first of many global projects planned between the two companies. The project, planned and built by Gehrlicher Solar, includes GE's thin film solar panels. Designed to improve the ease of installation and scalability of large-scale solar power plants, the 1 megawatt solar park will cover two hectares and provide enough power for nearly 300 homes when completed in August. GE, an established leader in the global renewable energy industry, has installed more than 25 gigawatts of renewable energy around the world. As one of the 10 largest independent photovoltaic project developers, Gehrlicher Solar has long-term international experience in the construction and operation of solar power systems of all sizes. "Combining Gehrlicher's experience and expertise in developing utility scale solar projects worldwide with GE's leading solar technologies will provide a winning solution for our global customers," said Stephan Ritter, leader of GE's renewable energy business in Europe. "As the industry expands into new regions around the world, we believe that GE's solar solutions will provide increasing value to the industry." Klaus Gehrlicher, CEO of Gehrlicher Solar AG, said, "GE's experience in renewable energy technologies and worldwide presence make the company an ideal partner for us. We are looking forward to joining our competences for the development of large scale solar parks." As one of the leading providers of renewable energy products and services, GE is committed to offering best-in-class technology at the lowest cost of electricity. Earlier this year, GE announced that it had achieved several major milestones in the solar industry, including a record in solar panel efficiency and the intention to build a 400-MW manufacturing facility for this technology.*





Figure 5.5.3 GE Week 2 Market Prices

The first transaction during week 2 of News Simulation for Exxon Mobil was on June 15<sup>th</sup>. As we can see in Figure 5.5.3 Exxon Mobil Week 2 Market Prices the market price of Exxon Mobil at the beginning of this week was \$78.66 and the weeks ending price was \$78.76. The second week for Exxon Mobil fluctuated for most of the week. The only transaction that took during the second week took place on June 15<sup>th</sup> when we bought 100 shares at \$78.66. The total cost of this transaction was \$7,876. The reason for buying shares on this date was when we read an article on yahoo finance. The article talks about Exxon Mobil discovery new oil. As can be read in a sample of the article below (Trefris Team 2011). We took this as Exxon Mobil probably lowering gas prices resulting from finding more oil. More people would then buy oil from Exxon Mobil resulting in market growth. By the end of the second week the total cash was \$984,298.

*Exxon Mobil recently announced two major oil discoveries and a gas discovery as a result of its deepwater exploration operations in the Gulf of Mexico.<sup>[1]</sup> The company claims that this is one of the largest discoveries in the region over the last decade and would add more than 700 million barrels of recoverable oil equivalents to the company's reserves. Exxon is the largest*

independent oil and gas exploration and production company in the world, producing more than 4 million barrels of oil equivalent (boe) daily. It competes with other industry giants like BP, Chesapeake, Anadarko, ConocoPhillips and Chevron. We currently maintain a \$92.44 price estimate for Exxon Mobil, implying a 15% premium to market price. Exxon Mobil has been focusing a lot on expanding its production capacity as well as its reserves base – a fact clearly indicated by the company’s declaration of allocating between \$33 billion and \$37 billion per year for capital and exploration expenditures over the next 5 years. This works out to a budget of more than \$100 million a day to pursue oil & gas opportunities.



Figure 5.5.4 Exxon Mobil Week 2 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/13/2011							\$384942	\$981260	
6/14/2011	GE	buy	\$18.6	1000	\$18610		\$366332	\$1004790	
6/15/2011	XOM	buy	\$78.66	100	\$7876		\$358456	\$984298	

Table 5.5.2 Week 2 News Simulation

Our third week of trade for the companies that Pat would be trading with was on the week of June 20<sup>th</sup> – June 24<sup>th</sup>. At the beginning of this week we had a total cash of \$984,298 and because we haven’t sold any shares of General Electric up to this point there has been no total profit. As we can see in Figure 5.5.5 GE Week 3 Market Prices, the market price of General Electric at the beginning of the week was \$18.82 and by the end of the week was \$17.97.

The first and only transaction that took place during this week was on June 22<sup>nd</sup>. We sold all 18000 of the shares that we held of General Electric at that time at a price of \$18.63. The total amount of money that we made from this transaction was \$335,330. The profit/loss between this transaction and the previous ones came out to be a loss of \$6,270. The article that we found talks about companies in France that deal with the same parts as GE and Pratt & Whitney, are being sold for cheaper prices than that of those two companies. The author says that GE margins will suffer from this. (Avi Salzman 2011).

*Although the companies say that the discounts are nothing new and in line with their previous actions, Parent is convinced that they indicate the environment is particularly competitive among the engine-makers as they battle to win business. "Bottom line is, this is a tough fight between Pratt and GE and the margins of both may suffer for a while versus prior expectations as they duke it out," she writes.*



Figure 5.5.5 General Electric Week 3 Market Prices

The third week of simulations for Exxon Mobil went similar to that of General Electric. The market for the most part was fluctuating, except for the end of the week when the market began declining for a few days in a row. The market price of Exxon Mobil as can be seen in Figure 5.5.6 Exxon Mobil Week 3 Market Prices was \$79.71 at the beginning of the week and at the end was \$76.78.

The only transaction that took place during this week was on June 22<sup>nd</sup>. We decided to sell 3700 shares of Exxon Mobil at the market price of \$79.82 for a total amount of \$295,324. The profit/loss between this this transaction and the previous tranactions of Exxon Mobil was \$4,620. The total profit up to this transaction was \$4,620 and by the end of the third week of News Simulation the total profit was at a loss of \$10,890. The main reason that we sold shares on this date was because of an article that talked about big oil companies market prices may decrease. The article can be seen below. (Randall Forsyth, 2011).

*The sharp slide in crude oil prices are having the unsurprising effect of sending the big oil majors sharply lower. West Texas crude is down \$5.58 to below \$90, \$89.75 while Brent is down \$8.29 at \$106.08. Futures on both types of crude were already sharply lower before the International Energy Agency announced this morning the release of 60 million barrels of crude over the next 30 days to alleviate shortages from the drop in Libyan output. ExxonMobil (XOM) and Chevron (CVX) are leading the majors lower. Among oil-service leaders, Schlumberger (SLB) is showing a similar 3%-plus drop. Even a refiner such as Valero (VLO) is getting hit just as hard even though refining margins ought to benefit from lower crude, all else being equal.*



Figure 5.5.6 Exxon Mobil Week 3 Market Prices

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/20/2011							\$358456	\$984298	
6/22/2011	XOM	Sell	\$79.82	3700	\$295324	\$4620	\$653780	\$989120	\$4620
6/22/2011	GE	Sell	\$18.63	18000	\$335330	\$6270	\$989110	\$989110	\$10890

Table 5.5.3 Week 3 News Simulation

The fourth week of trade for the companies that Pat would be trading with was on the week of June 27<sup>th</sup> – July 1<sup>st</sup>. At the beginning of this week we had a total cash of \$989,110 and a total profit of a loss of \$10,890. As we can see in Figure 5.5.7 General Electric Week 4 Market Prices, the market price of General Electric at the beginning of the week was \$18.29 and by the end of the week was \$19.2.

We can see in Table 5.5.3 Week 3 News Simulation that the only transaction that was made regarding General Electric during this week was made on June 28<sup>th</sup>. On this date we bought back the 18,000 shares that we sold the previous at the market price of \$18.44 for a total cost of \$331,930. We read an article on this day that talked about the negotiations of a deal between GE union and the head of GE. They were close on a deal that would increase salary and bonuses for GE employees (Bob Sechler). Again, like most articles that we read, this article had to deal with company growth. Company growth is always a factor in whether the market price grows.

*Approval of the four-year deal appears on track after the estimated 15,200 GE union members covered by it began voting late last week. GE had about 133,000 employees in the U.S. at the end of 2010. GE said 23 of 80 union locals had reported results as of late Monday, and all had voted to ratify the deal. The bulk of locals are set to finish voting by Wednesday evening, although a few are scheduled to vote Thursday morning, GE said. Leaders of the International Union of Electronic Workers-Communications Workers of America and the United Electrical, Radio and Machine Workers of America--which represent the majority of GE's union employees--have recommended ratification.*



Figure 5.5.7 General Electric Week 4 Market Prices

The transactions that was made regarding Exxon Mobil during this week was made on June 29<sup>th</sup> and July 1<sup>st</sup>. We can see in Table 5.5.4 Week 4 News Simulation that on June 29<sup>th</sup> we bought 3700 shares at the market price of \$80.25 for a total cost of \$296,935. We read an article is straight forward. It talks about how oil stocks are increasing in price because oil inventories dropped (Avi Salzman).

The Energy Information Administration said this morning that oil inventories dropped 4.4 million barrels last week, well more than analysts had expected. Crude oil futures for August delivery jumped on the news, and were up 1.9% to \$94.63 per barrel at about 10:45.

Oil stocks, which had been mixed in early trading, jumped on the news. ConocoPhillips (COP) rose 1.5%; French oil giant Total (TOT) was up 1.7%.

The second transaction that was made during this week was on July 1<sup>st</sup>. The shares that we bought a couple days before this were all sold for \$82.01 price per share for a total amount of \$303,427 as can be seen in Table 5.5.4 Week 4 News Simulation. The profit loss between this

transaction and the previous one was a profit of \$6,492. The article that we found talked about Exxon Mobil having to pay a certain amount that resulted from the gas leak in Maryland. (The Associated Press). The total assets at the end of the week were \$996,612 and total profit was at a loss of \$4,398. Both of which increased from the previous week.

*Exxon Mobil Corp. has been ordered to pay more than \$1.5 billion in damages to 160 families and businesses affected by a 2006 gasoline leak in Maryland. Jurors awarded more than \$1 billion in punitive damages on Thursday, after earlier awarding \$495 million in compensatory damages. The ruling in Baltimore County Circuit Court follows a \$150 million award in 2009 involving about 90 households, which Exxon is appealing. The Irving, Texas-based oil company said the facts do not support the latest ruling and that it will appeal it as well.*



Figure 5.5.8 Exxon Mobil Week 4 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
6/27/2011							\$989110	\$989110	\$10890
6/28/2011	GE	Buy	\$18.44	18000	\$331930		\$657170	\$989100	\$10890
6/29/2011	XOM	Buy	\$80.25	3700	\$296935		\$361235	\$990100	\$10890
7/1/2011	XOM	Sell	\$82.01	3700	\$303427	\$6492	\$664692	\$996612	\$4398

Table 5.5.4 Week 4 News Simulation

The fifth week of trade for the companies that Pat would be trading with was on the week of July 4<sup>th</sup>- July 8<sup>th</sup>. At the beginning of this week we had a total cash of \$996,612 and a total profit of a loss of \$4,398. As we can see in Figure 5.5.9 General Electric Week 5 Market Prices, the market price of General Electric at the beginning of the week was \$19.2 and by the end of the week was \$18.99.

The one and only News strategy transaction during week 5 was General Electric. This took place on July 8<sup>th</sup>. We sold all the shares that we held in GE at the market price of \$18.99 for a total amount of \$341,810 as can be seen in Table 5.5.5 Week 5 News Simulation. The profit/loss between this transaction and the last one that we made regarding GE was a profit of \$9,880. The article that we read was regarding the drop in market price. The article talked about certain stocks, XOM being one of them, that would decrease due to the U.S. credit rating (Steve Gelsi).

*Setting the stage for jaw-dropping losses in the energy sector juxtaposed against the backdrop of a downgrade in the U.S. credit rating, crude futures plunged further, retreating 6.4% to close at \$81.31 a barrel. Read more on latest rout in crude futures.*



Figure 5.5.9 General Electric Week 5 Market Prices

The fifth week of News Simulation for Exxon Mobil didn't have much happening. As we can see in Figure 5.5.10 Exxon Mobil Week 5 Market Prices the beginning price that week was \$82.01 and by the end of the week reaches \$82.42. No transactions took place during this week.



By the end of week 5 the total cash and total assets were equal and at \$1,006,502 giving us a total profit to \$6,502.



Figure 5.5.10 Exxon Mobil Week 5 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/4/2011							\$664692	\$996612	\$4398
7/8/2011	GE	Sell	18.99	18000	\$341810	\$9880	\$1006502	\$1006502	\$6502

Table 5.5.5 Week 5 News Simulation

The sixth and final week of trade for the companies that Pat would be trading with was on the week of July 11<sup>th</sup>- July15<sup>th</sup>. At the beginning of this week we had a total cash of \$1,006,502 and a total profit of a \$6,502. As we can see in Figure 5.5.11 General Electric Week 6 Market Prices, the market price of General Electric at the beginning of the week was \$18.58 and by the end of the week was \$18.41. For the last week of General Electric News Simulation there were no transactions that took place. After selling the final shares the previous week, we didn't see any news that would make use buy back into General Electric one final time.



Figure 5.5.11 General Electric Week 6 Market Prices

The final week of News Simulation for Exxon Mobil had two transactions take place. The beginning of the week started off at \$81.9 and by the end of the week rose to \$83 as can be seen in Figure 5.5.12 Exxon Mobil Week 6 Market Prices. The first transaction occurred on July 11<sup>th</sup>. We bought 3700 shares of Exxon Mobil at the market price of \$81.89 for a total cost of \$303,003. The article that we read regarding Exxon Mobil talked about 8 dividend stocks that had strong balance sheets. Exxon Mobil has a strong balance sheet and is a good stock to buy during this time because of that. A sample of the article can be seen below (Seeking Alpha). The final transaction of Exxon Mobil for this simulation took place on July 15<sup>th</sup>. This was the last day of the simulation and we sold all our shares at the market price of \$83 for a total amount of \$307,110. The profit/loss between these last two transactions was a profit of \$4,107. By the end of the simulation our total cash and total assets were equal to \$1,010,599 giving us a total profit of positive \$10,599.

*XOM is a consistent outperformer in the oil industry, and maintains a pristine balance sheet. The company has considerable investments in both oil and natural gas, and has enormous upstream, downstream, and chemical segments. The company has a fairly low dividend yield, but puts considerable cash towards buying back shares and reducing its number of outstanding*

shares. This results in considerable EPS growth and dividend growth, but is not without its conflict of interest. Recently, I published a quantitative analysis article titled "Exxon Mobil Returning Cash to Shareholders", on Exxon Mobil's dividends and share repurchases over the last 10 years.



Figure 5.5.12 Exxon Mobil Week 6 Market Prices

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Assets	Total Profit
7/11/2011							\$1006502	\$1006502	\$6502
7/11/2011	XOM	Buy	81.89	3700	\$303003		\$703499	\$1006502	\$6502
7/15/2011	XOM	Sell	83	3700	\$307110	\$4107	\$1010599	\$1010599	\$10599

Table 5.5.6 Week 6 News Simulation

## 5.6 Patrick's Results

At the beginning of the News Simulation we started off with buying 15,000 shares of General Electric at \$19.09 for a total cost of \$286,360. Throughout this whole simulation, the number of times we bought or sold shares came out to be 6 times for a total of \$60 in commissions. After buying more shares of General Electric we sold 18,000 at the end of the simulation at the market price of \$18.99 for a total of \$341,810. With all the trades that we made the total profit for General Electric came out to be \$3,610. We calculated that if we kept the shares that

we bought at \$19.09 and didn't sell those shares till the end of the simulation at \$18.99 we would have had a total profit of a loss of \$1,510. In our opinion this strategy did work for General Electric.

At the beginning of the News Simulation we started off with buying 3500 shares of Exxon Mobil at \$81.18 for a total cost of \$284,140. Throughout this whole simulation, the number of times we bought or sold shares came out to be 8 times for a total of \$80 in commissions. After buying more shares we sold our shares at the end of the simulation at \$83 for \$307,110. With all the trades that we made the total profit for Exxon Mobil came out to be \$5,979. We calculated that if we kept the shares that we bought at \$81.18 and didn't sell those shares till the end of the simulation at \$83 we would have had a total profit of \$6,360.

Over all we started off with a total cash amount of \$1,000,000 and total assets amount of \$1,000,000. By the end of the simulation we ended with \$1,010,599 making the total profit \$10,599. The percent that was made off the \$641,244 that we bought overall was 1% return on investment.

## Chapter 6: Conclusion and Analysis

By the end of our simulation using Swing strategy, Trend Following, and News Following, all the strategies had positive total profits. The end total costs for Patrick's Simulations were \$704,150 for Swing Strategy, \$1,010,599 for News Following, and \$744,839 for Trend Following. The total profits of each strategy were \$4,150, \$10,599, and \$44,839. The return on investment that we had for each simulation were compared to how much money we spent buying those shares were, .7% for Swing, 1% for News, and 8% for Trend. The return on investment wasn't as high as we thought that they would be even for such a small simulation period. We would have liked each return to be above the 5%

For Mayank's six companies, there ended up being a total profit for all the companies that were involved in the simulation. For the two companies in the trend following simulation, I received a total of \$3345 in returns which brought me an increase of 3.345% of the money I had invested. For the Swing trading simulation, I received a total of \$4915 in total returns which brought us an increase of 4.915%. Finally, for news following, we received a total of \$5445 which brought a total of 5.445% in earnings. Mayank's and Patrick's amount invested for each simulation was different as Mayank had only invested a total of \$300,00 for all six companies and allocating \$50,000 for each company. This brought a total of \$13,705 for total returns on the total money that was invested, bringing a return of 4.57% in profits. This may seem like a low number, however, one of the major reasons why this was not as high was because the \$50,000 that was allocated for each company, was not used fully. At an average only about \$30,000 was used to invest in each company while the rest was there taking into account the risk factor when investing in the market.

In conclusion though, we feel that we received a good amount of returns for the time that was spent on the simulation. From our research, we had seen that several hedge fund companies and large investment firms spend several days and weeks creating portfolios which analysts believe will be profitable while staking several millions of dollars on the line. With the money that is given to the portfolio managers, they also usually show the results of their efforts within a few years. On the contrary, our simulation was given just 6 weeks, and the fact that we have brought this much in returns is a fairly large amount. We firmly believe that if given the correct amount of time to invest, our price to earnings ratio and our overall profit would have been much better over even several months. Furthermore, we also believe that swing trading strategy gave us the best result. For Patrick, his best returns were on trend and Mayank's were on news. Although it was the opposite, we believe that swing was the best because of the amount of money we received after investment based on the way the company behaved. In more detail, we felt that the companies we simulate in swing and the way the price value fluctuated, its strategy gave us the best result. Although trend and swing trading are similar, based on the duration of the simulation, swing trading had the advantage. As stated before, trend following is a strategy that could be for a longer term investment; however, swing trading can be longer but on an average only last a few days to maybe a week. As described, our trades followed that such pattern and gave us a positive return on our investment.

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